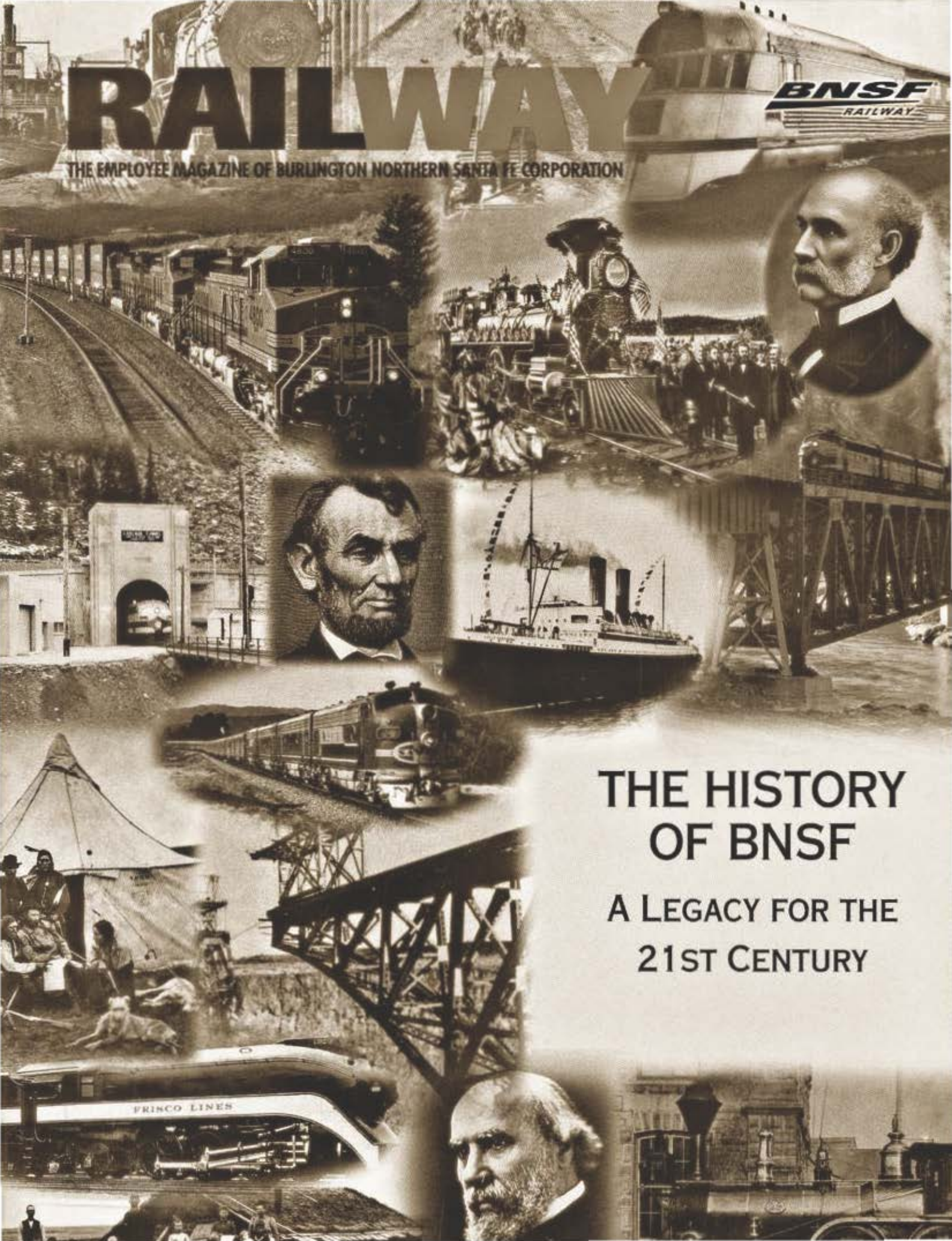

THE HISTORY OF BNSF

A LEGACY FOR THE 21ST CENTURY

RAILWAY

THE EMPLOYEE MAGAZINE OF BURLINGTON NORTHERN SANTA FE CORPORATION

CONTENTS

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Our vision is to realize the tremendous potential of The Burlington Northern and Santa Fe Railway by proving transportation services that consistently meet our customers' expectations.

BNSF RAILWAY

BNSF'S HISTORY SETS PRECEDENTS FOR 21ST CENTURY

The course of U.S. history was forever changed some 150 years ago, when steel tracks were laid alongside the routes of cattle trails and wagon trains. The fever for owning land, fueled by the desire to tap the West's untouched riches, was of epidemic proportions. There was no stopping the waves of settlers from the East, plus rail was a necessity for the booming cattle trade. The western railroads helped realize the American dream, reshaping both the country's landscape and its entire socio-economic system.

The forefathers of the Burlington Northern and Santa Fe Railway were dreamers, too. They recognized that not only would railroads be the catalyst for settlement and growth of the West, but that transcontinental trains were needed to open coast-to-coast commerce. The legacy of men like Cyrus K. Holliday, builder of the Santa Fe Railway, and James J. Hill, founder of the Great Northern Railway, was the development of an entire region of the country, thus, assuring the future of a nation.

Today, the BNSF Railway, created through the Sept. 22, 1995, merger of Burlington Northern Inc. and Santa Fe Pacific Corp., builds on the traditions of its hundreds of predecessors while providing customers more single-line service options to more markets with shorter access routes and faster transit times.

BNSF's reach covers the western two-thirds of the United States as well as portions of Canada and key Mexican gateways with some 34,000 route miles. While the merger created, in a legal sense, the nation's newest railroad, it combined some of the most storied names and events in the industry.

Many of the some 390 BNSF predecessor railroads were considered among the industry's most successful and innovative. They carried mail to connect with the Pony Express, introduced rail cars equipped to sort U.S. Mail enroute, and were the first to operate the printing telegraph and to use train radio and centralized traffic control.

BNSF predecessors were also leaders in equipment modernization, introducing The Zephyr (America's first diesel-electric, streamlined passenger train) and developing the nation's first vista-dome car. More recently, the predecessors helped the United States create the best grain logistics system in the world, and pioneered the development of the intermodal business and the use of high-horsepower AC (alternating current) traction locomotives.

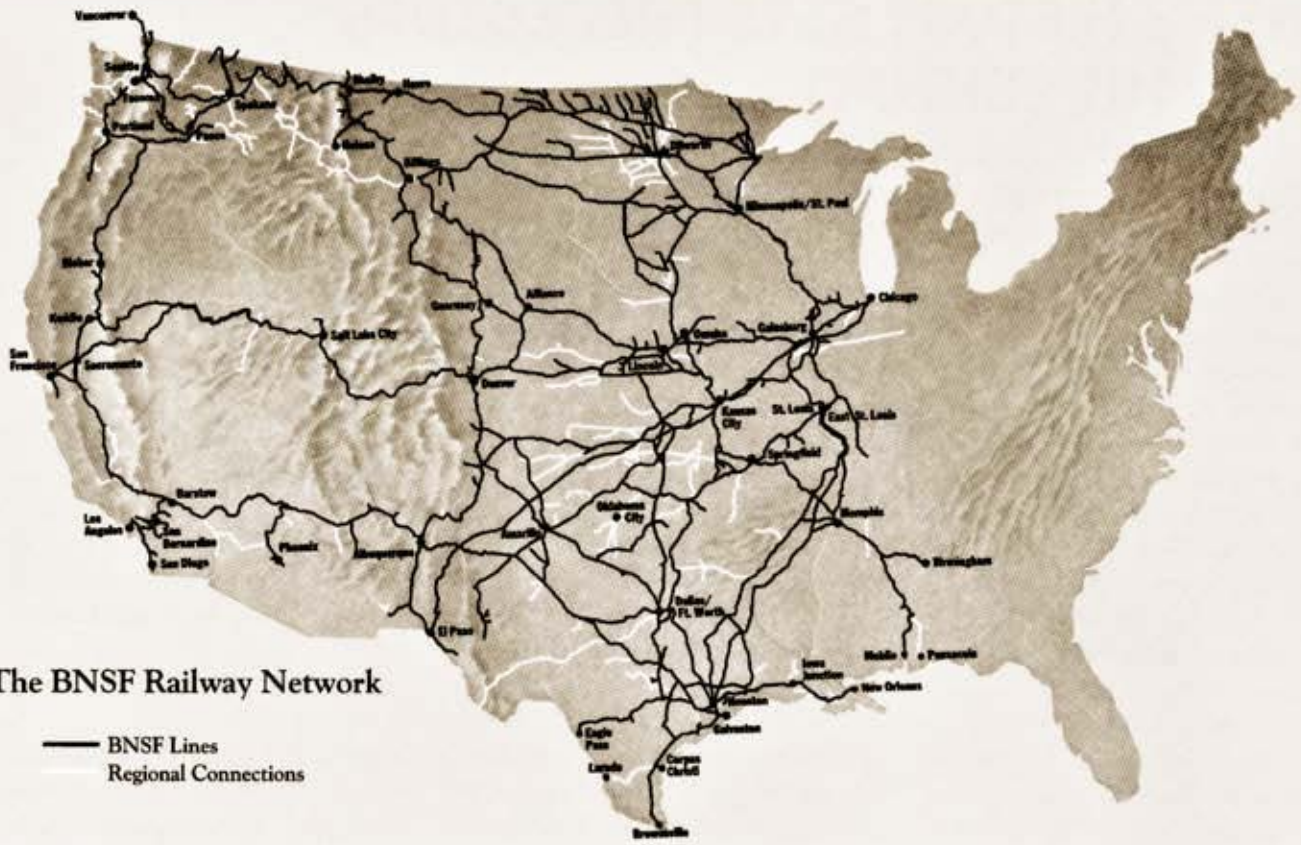
The oldest of the BNSF predecessors were both founded in 1849: The Aurora Branch Line (which would eventually grow into the Chicago, Burlington & Quincy – CB&Q), and the Pacific Railroad of Missouri (a portion of which would become the St. Louis-San Francisco Railway, or "Frisco"). Another 10 years later, the Atchison, Topeka & Santa Fe Railway (Santa Fe) took root in Topeka, Kan.

The Santa Fe was built along the "Trail of Faith," the route of commerce known as the Santa Fe Trail. The railroad was considered by many to be just the over-ambitious dream of Cyrus K. Holliday, whose vision was to see the Santa Fe extend to Chicago, St. Louis, Mexico, San Francisco and Galveston, Texas. Holliday's legacy was a railroad that endured, eventually merging with or acquiring more than 70 other lines. The railway and the Southwest were synonymous, and today its pioneer spirit endures in BNSF Railway.

The youngest predecessor in the BNSF family tree was the Burlington Northern Railroad (BN), which was created in 1970 with the merger of five railroads: the CB&Q; the Great Northern (GN); the Northern Pacific (NP); the Spokane, Portland & Seattle (SP&S); and the Pacific Coast, a small regional railroad. In 1980, the Frisco was added to the BN. In many ways, the creation of BN was the realization of empire builder James. J. Hill's dream of a transcontinental railroad connecting the East to the Pacific Northwest. But the merger to create BN took several attempts and more than 75 years to realize. Even though the BN was young considering the life spans of most American railroads, it still carried forward the innovations and traditions established by the more than 300 railroads it comprised. It grew up during a time of great economic and regulatory change and growth, allowing it to build upon the entrepreneurial spirit of its predecessors.

With the passage in 1980 of the Staggers Act, which partially deregulated the railroad industry, BN was the first in the industry to organize its marketing department into business units to improve focus on major traffic lines. Deregulation brought with it innovation and creativity. Santa Fe developed the first land-bridge container train, linking Asia with Europe using Santa Fe and Penn

The Burlington Northern and Santa Fe Railway now stretches far beyond even the grandest dreams of the founders of BNSF's predecessors, serving the western two-thirds of the United States, as well as Canada and Mexico.



The BNSF Railway Network

BNSF Lines
Regional Connections

Central (now CSX and Norfolk Southern through the purchase of Conrail) lines.

In the 1980s, in response to rising energy and inventory carrying costs, lightweight alloys and plastics began displacing the bulky, heavy materials that railroads traditionally hauled. Also, as manufacturers wanted materials moved to assembly lines and finished products moved to retail outlets "just in time," they required faster, more frequent, on-time deliveries. These new demands played to the strengths of trucks and the weaknesses of railroads.

Both BN and Santa Fe, however, would help lead the rail industry's effort to capture a greater share of this market with service that would harness the strengths of both truck and rail -- intermodal.

In 1978, Santa Fe built "Fuel Foilers," articulated 10-unit spine cars for long-distance intermodal service. In 1990, the company entered a partnership with J.B. Hunt, the first such partnership between a railroad and trucking firm, which led to Santa Fe's preeminence in the intermodal business.

Meanwhile, BN had opened intermodal hub centers, which consolidated hundreds of piggyback ramps at strategic locations. Hub centers enabled railroads to combine the volumes of trailers and containers necessary to justify dedicated and scheduled intermodal trains to compete with all-highway moves.

Intermodal was just one of the businesses pioneered by BNSF predecessors. In the 1970s, BN began laying the foundation for the nation's most important new fuel source for generating electricity: low-sulfur coal from the Powder River Basin (PRB) in Wyoming and Montana. Not only was PRB coal lower in cost, it burned more cleanly, thus was better for the environment. PRB coal later gained momentum with the federal Clean Air Act and its emission standards for coal-fired electric plants.

To help haul PRB coal, BN became the first North American railroad to make a commitment to AC-traction locomotives in the early 1990s. Santa Fe had already helped advance new locomotive standards in the late 1980s, when improvements were made in cab design.

To help manage and improve service, BN opened a Network Operations Center (NOC) in March 1995, ushering in a new age of railroading with the industry's largest and most advanced real-time operations control center. In the room the size of a football field, train dispatchers, locomotive assignment desks, crew planners, and operations managers electronically "see" and manage trains 24 hours a day.

While the NOC was still under construction, negotiations had begun on a merger agreement between BN and Santa Fe. The merger of the two on Sept. 22, 1995, created BNSF Railway, the largest rail network in North America at that time.

Yes, BNSF has come a long way since the Aurora Branch was organized Feb. 12, 1849, built upon borrowed equipment and operating on rail laid with secondhand iron. From these humble beginnings, the life of BNSF has spanned more than a century and a half, much of its growth owed to the pioneers who challenged the boundaries – whether they were economic, environmental, technological or regulatory. Today, BNSF's community of more than 40,000 employees is carrying forward the entrepreneurial spirit of its forefathers as we push into the 21st century.

BNSF'S PREDECESSORS

CHICAGO, BURLINGTON & QUINCY: A RAILROAD KNOWN FOR MANY FIRSTS

From its humble start, it is unlikely that any of the Aurora, Ill., businessmen founding the Aurora Branch Railroad in 1849 could have envisioned the fledgling corporation evolving into Burlington Lines – the largest of Burlington Northern's predecessor railroads with nearly 10,000 miles of track extending from the Great Lakes to the Rocky Mountains and from Montana to the Gulf of Mexico.

The Aurora Branch was laid with second-hand scrap iron spiked to 12 miles of wooden rails, obtained from the Buffalo & Niagara Falls Railroad at a bargain price after the New York legislature had outlawed their use.

Locomotives like this American-type CB&Q (No. 29 built in 1855) pulled trains in Civil War days.

Aurora Branch Sees First Service

On September 2, 1850, the first train chugged its uncertain way over six miles of newly built line from Batavia to Turner Junction (now West Chicago), switching to the tracks of the Galena and Chicago Union Railroad which had been completed to Chicago the year before. As neither secondhand cars or locomotive had arrived from the East, the trip was made with equipment borrowed from the Galena line. Burlington thus became the second railroad to serve Chicago.

Line Bought by Boston Investors

Progress over the next two decades was rapid, aided largely by a group of Boston investors who bought the line in 1852.

By 1864, the railroad had 400 miles of track – all in Illinois – and adopted the name Chicago, Burlington & Quincy Railroad Co. (CB&Q), which properly described its trackage stretching to Burlington, Iowa, and Quincy, Ill., on the Mississippi River. The name also had staying power, for it lasted 106 years until the Burlington Northern merger in 1970.

The Burlington, as it came to be known, completed its own line from Aurora to Chicago in 1864, and the following year had the distinction of operating the first train into Chicago's newly opened Union Stockyards.

John Forbes Forges CB&Q System

Burlington's rapid expansion after the Civil War was based on sound financial management, dominated by John Murray Forbes of Boston, who in turn was assisted by Charles E. Perkins. Perkins was a powerful administrator who eventually forged a system out of previously loosely held affiliates, virtually tripling

John M. Forbes

Charles E. Perkins

Burlington's size during his presidency from 1881 to 1901.

In an amalgamation of 204 railroads, two were particularly outstanding: The Hannibal and St. Joseph Railroad Co. (H&St. J) and the Burlington and Missouri River Railroad Co. (B&MR).

Promoted by important citizens at each end of the route – including Mark Twain's father, John M. Clemens – Hannibal and St. Joseph's construction began in 1852 and was completed in 1859. The railroad brought mail across Missouri to connect with the Pony Express, introduced in 1862 the first railroad car equipped for sorting U. S. Mail enroute, and during the Civil War was constantly harassed by Confederate raiders. Afterward, it became an occasional target of Jesse James and other train robbers.

The H&St. J also sparked the beginning of Kansas City as a rail center and gateway to the Southwest. In 1869, under the direction of engineer Octave Chanute, the company completed the first bridge over the Missouri River.

The B&MR was incorporated in 1852 to build across the state of Iowa. Operations began over the first few miles of track on New Year's Day 1856. The road reached Ottumwa by 1857, and was completed to the Missouri River in November 1869. From the beginning, the line had financial help from Forbes and his Boston-New York group of investors because it provided a natural westward extension of the rapidly building CB&Q

which in turn was a feeder for the Forbes-owned Michigan Central.

In 1868 the Burlington completed bridges over the Mississippi both at Burlington and Quincy, giving the railroad through connections with the B&MR and H&St. J.

Close ties between the Burlington and the H&St. J were temporarily severed in 1871, when Jay Gould and his New York allies secured control of the Missouri line as a pawn in bitter rate wars and shifting alliances. Traffic interchanges with the Burlington remained so important, however, that by 1883 Perkins was able to reacquire the line and it became an integral part of the Burlington system.

While the B&MR was still building westward, plans were made for an extension into Nebraska. A separate company, Burlington & Missouri River Rail Road in Nebraska, was formed in 1869. During the summer of 1870 it reached Lincoln, the newly designated capital of Nebraska. A junction with the Union Pacific at Kearney was achieved in 1872.

Line Completed to Denver in 1882

By the time the Missouri River bridge was opened at Plattsmouth in 1880, the B&MR in Nebraska had pushed into western Nebraska. The value to the CB&Q of the westernmost feeder was now established and, in 1880, the Nebraska line was purchased outright. In 1882 the line was completed to Denver, providing the Mile High City with its first direct rail route to Chicago over a single railroad.

As Burlington rails were pushing westward, other segments were built in the Midwest, notably links to St. Louis and Rock Island. The idea of building north to the Twin Cities also was gaining momentum.

Northern Pacific had reached Puget Sound, James J. Hill had connected his forerunner of the Great Northern with the Canadian Pacific, and it became apparent that extension north-westward would put Burlington in a position to handle grain and lumber south, while moving coal and manufactured products to the north.

In 1885, lines were extended from Oregon, Illinois (on the Chicago & Iowa Railroad) and north from Fulton (on the route from St. Louis) to Savanna, Ill.; then northward along the Mississippi River, reaching St. Paul in 1886.

A bird's-eye view of Burlington, Iowa in the 1870s shows extensive CB&Q shops and yards.

More railroad building eventually gave the Burlington a main line from St. Louis and Kansas City through St. Joseph and Lincoln to Billings, Mont. During this same period, the Burlington either built or acquired a network of branch lines over the rich agricultural regions of northern Illinois, southern Iowa, northern Missouri and southeastern Nebraska.

Agriculture Aggressively Promoted

Throughout the years, products from farms and ranches were essential to the CB&Q, and the company became known as a "Granger Road." Burlington representatives worked closely with farmers and ranchers, and as early as 1854 the railroad advised prospective settlers on what crops could be successfully raised in Missouri. Alfalfa was introduced by the railroad as a commercial crop in Nebraska in 1875. Crop and stock improvement, irrigation and soil conservation were aggressively promoted. Through seed and soil exhibits, poultry special and livestock trains, the Burlington helped bring the most advanced agriscience directly to the farmer. Burlington often would employ farmers at its shops during winter months until they were able to establish their farms and attend them on a full-time basis.

Congress granted the Burlington tracts of land in Missouri, Iowa and Nebraska to promote expansion and settlement. To attract settlers, the railroad employed as many as 250 agents in the eastern U.S. and in offices in England, Scotland, Sweden and Germany. From 1870 to 1880, Burlington sold over two million acres of land to some 20,000 people.

While filling out its territory, the railroad also was improving technologically with heavier rail, more powerful locomotives and larger cars. In 1886 and 1887, George Westinghouse conducted air brake tests on the grade at West Burlington, Iowa, inventing the triple valve. His device perfected the air brake and brought it into universal use.

The Oldest BNSF Logo

Probably one of the most familiar and unchanging American corporate trademarks is the simple rectangle CB&Q trademark emblazoned with the words "Burlington Route." The block first appeared as early as 1880 in advertising, and in 1884 the Board of Directors adopted a resolution outlining its style and wording. The first symbol carried the legend "Burlington Route" in distinctive lettering that remained constant over the years. The directors specified that the letters would be white on a black block, encompassed by a narrow white line, with a black line outside the white.

Burlington built its first timber preservation plant at Edgemont, S.D., in 1899 and opened a research laboratory at Aurora, Ill., in 1900.

The turn of the century witnessed far-reaching changes in management of the Burlington. The death of Forbes in 1898 symbolized the end of an era. For 47 years, he had guided the company's finances, serving as a director for the last 41 years of his life. At the end of February 1901, Perkins resigned as president, although continuing as a director.

Hill Sees Value of Tie with CB&Q

Meanwhile, in St. Paul, James J. Hill was shifting strategy. Frustrated in his attempt to consolidate the Great Northern and Northern Pacific in 1896, he now sought a common connection to the East. In 1901, the main lines of the two Northerns terminated at the Twin Cities. Chicago, however, not Minneapolis or St. Paul, was the railroad capital of the nation. Hill observed: "The best traffic of the Great Northern and Northern Pacific is the cotton and provisions west and the lumber and timber eastbound. The great provisions centers are Kansas City, St. Joseph, Omaha, Chicago and St. Louis, none of which are reached directly by the Great Northern or Northern Pacific. The Burlington lets us into all these districts and commercial centers over better lines and with better terminals than any other road."

GN/NP Jointly Purchase Burlington

In 1901, the GN and NP jointly purchased 97.2 percent of the CB&Q's stock, paying $200 per share.

Hill, as always, was seeking balanced traffic for his system and believed coal, minerals, livestock and agricultural produce from Texas and Colorado could be exchanged for imports from the Orient and timber and other products available from the Pacific Northwest. The Colorado and Southern (C&S) and Fort Worth & Denver (FW&D) lines provided routes from Cheyenne, Wyo. and Denver south to Fort Worth, Dallas and the port cities of Houston and Galveston. With a link from Cheyenne to Billings, Mont., Hill would have a tidewater-to-tidewater line from Puget Sound to the Gulf of Mexico and a diagonal transcontinental line through America.

Acquisition Provides Line to Gulf

With this in mind, 70 percent of the C&S and FW&D stock was purchased by the Burlington in 1908. A year later, construction began extending the Billings-Kirby branch southward through the Wind River Canyon to a connection with the Colorado & Southern east of Casper, Wyo. By the time the major extension was completed in 1914, Great Northern had built into Billings and both Northerns had direct connections with Denver and the Gulf.

Hill was perhaps the first to envision this "land bridge" route between the Pacific and the Gulf, and had it not been for the Panama Canal, and the Panama Canal Act of 1914 which forbid carrying materials between the Gulf and Hill's steamships in the Pacific Northwest, the line may have prospered more than it did.

Always anxious to employ the latest technology, Burlington operated the first printing telegraph (a forerunner of the teletype) in 1910, and in 1915 was the first railroad to use train radio, utilizing a transmitter located at Riverside, Ill. Communication with trains was achieved, but the need for a telegrapher on board the train made the devise impractical. Train radio became a reality in 1943 when aircraft radios were successfully adapted to train operations.

In 1927, the Burlington was one of the first to utilize centralized traffic control and by the end of 1957 had equipped 1,500 miles of track for this advanced type of signaling.

Perhaps Burlington's best known achievement took place in 1934, shortly after the railroad introduced the Pioneer Zephyr – America's first diesel-powered streamlined passenger train. Its high-speed diesel-electric propulsion system was the forerunner of thousands of diesels which, in the span of a few short years following World War II, replaced steam locomotives on virtually every railroad in the country.

Pioneer Zephyr Establishes Record

On May 26, 1934, Burlington staged one of the greatest transportation events of the Thirties – a 1,000-mile record-breaking, non-stop run from Denver, Colo., to the World's Fair on Chicago's lake front, where the Pioneer Zephyr climaxed the "Wings of a Century" transportation pageant. Bulletins had been broadcast throughout the day as the train streaked through villages and cities. At 8:09 p.m., the Pioneer Zephyr rolled

Progenitor of the famous family of Burlington Zephyrs was the Pioneer Zephyr, which reached 104 miles per hour on its trial run in 1934. The train is on permanent display at Chicago's Museum of Science and Industry.

The first "penthouse" dome car on any railroad was Burlington's "Silver Dome," which made its debut in 1945 on the Twin Cities Zephyr. The car was so popular that within six months 40 more were ordered.

onto the stage and bedlam broke loose. A world's long-distance record had been set, and the value of diesel-electric power was firmly established.

In reporting the run to his directors, president Ralph Budd emphasized two facts: the fuel cost for the 1,000-mile trip was $14.64 and the highest speed attained was 112.5 miles per hour. In a nutshell, economy and speed became the basis for the coming revolution in railroading.

Burlington's first freight diesels were purchased in 1944, and 95 percent of its operations were dieselized by 1953.

In 1945, Burlington created America's first vista-dome car. In 1950, it ushered in the age of modern commuting, bringing to Chicago America's first double-deck, stainless-steel suburban equipment. In 1952, Burlington became the first railroad to completely dieselize a suburban service. An all-new Denver Zephyr entered service between Chicago and Denver-Colorado Springs in 1956 and brought with it another railroading first, the Slumbercoach. These economy sleeping cars provided rooms for coach passengers for only a small occupancy charge.

While the railroad was improving passenger service, freight transportation was also being modernized. The yard at Galesburg, Ill., was equipped with electro-pneumatic retarders in 1931. In 1942, to meet sudden increases in traffic, a second hump yard was built. To match these facilities, the Lincoln, Neb., yard was converted to hump operations in 1944. The car-building shop was moved from Galesburg to Havelock (Lincoln), Neb., in 1943, and the locomotive shops at West Burlington were expanded in 1946 to take care of heavy repairs to diesel locomotives.

Motor Transport Subsidiary Formed

Burlington established a bus and trucking subsidiary in 1935; the former, known as Burlington Trailways, was sold in 1946. The trucking operation was expanded to over 10,000 route miles. It also participated in piggyback traffic with the parent company as early as 1940.

In 1958, the railroad modernized its classification yard at Cicero (Chicago) making it a modern, electronic facility. A new high-level bridge was constructed in 1960 at Quincy, Ill., to replace a 92-year-old span. Earlier, in 1954, Burlington completed 71 miles of new line in its Centennial cutoff between Brookfield and Maxwell, Mo., providing a more direct route between Chicago and Kansas City gateways and shortening the route by over 20 miles.

In 1958, Burlington also revolutionized railroad refrigeration techniques by using foamed-in-place polyurethane to insulate railcars. The new process produced the strongest, most efficient insulated cars in America and, in many cases, dramatically lowered transportation costs.

A large, three-track diesel maintenance facility was built at Lincoln in 1964. Soon after it opened, the facility was servicing over half of Burlington's motive power fleet.

Burlington's use of computers, which started in 1957, was gradually expanded and by 1967 was functioning on a "real-time" basis. A microwave system was built between Chicago and Lincoln in 1966.

Agency Vans Another CB&Q 'First'

In 1967, Burlington became the first railroad to use direct service vans. These offices-on-wheels enabled the railroads to discontinue station structures on numerous branches, yet improve service by having agents go directly to shipper offices.

In 1967, ground was broken for a new automatic classification yard at North Kansas City because Kansas City was such an important traffic gateway on the Burlington.

On March 2, 1970, Chicago, Burlington & Quincy Railroad Co. became part of Burlington Northern Inc., merging with Northern Pacific, Great Northern, and Spokane, Portland and Seattle railways.

The Chicago skyline sparkles in the background as a CB&Q commuter train leaves Union Station on a fast run to Aurora. Modern suburban service in the U.S. began in 1950 when Burlington introduced the first double-deck, air-conditioned cars to Chicago commuters. The suburban operation was the first to be completely dieselized in 1952.

BNSF'S PREDECESSORS

THE FRISCO: A BATTLER AND A SURVIVOR

The story of the St. Louis-San Francisco Railway Company – known for more than a century to its mid-South neighbors as the Frisco – is a narrative of battles against long odds and of adaptation to changing circumstances. Whatever else it may have been, the Frisco was a survivor.

The story begins in 1849, when the Pacific Railroad of Missouri was chartered by the Missouri legislature to build a line from St. Louis almost due west to the Missouri-Kansas border.

It was July 1851 before work actually began on the Pacific; at that time there were no railroads west of the Mississippi, and none had reached it from the east.

Even before the first 37-mile stretch of the Pacific was completed in 1852, the legislature authorized construction of a branch line to leave the main line at Franklin, Mo., (now Pacific) and run southwest to Springfield and the Indian Territory border.

Backers Had High Hopes

There were high hopes for the South-West Branch as it was called, its backers believed it would be extended into Indian Territory to the 35th Parallel, along which a railroad route to San Francisco was even then being surveyed.

The money troubles that had delayed the start of construction on the Pacific caused a similar delay for the South-West Branch, and it was June 1855 before construction began on what would become the nucleus of the Frisco system.

Once begun, work proceeded rapidly, and the onset of the Civil War found the railroad completed to Rolla, Mo., about 75 miles southwest of Franklin. There the terminus remained throughout the war.

Marauders Created Havoc

The marauding bands of bushwhackers and jayhawkers that terrorized much of Missouri during the war did considerable damage to both the South-West Branch and its parent Pacific. Both were bankrupt by war's end.

They were sold to General John C. Fremont, the noted explorer and son-in-law of Missouri Senator Thomas Hart Benton.

Fremont – with his Washington, D.C. influence – was able to obtain a federal franchise and land grant in the name of his Atlantic & Pacific Railroad (A&P) for extension of the South-West Branch to San Francisco along the 35th Parallel survey route.

However, he was considerably less successful in actually laying track, and in 1868 the South Pacific Railroad Company acquired the line from the state of Missouri.

South-West Branch Extended

The South Pacific extended the erstwhile branch to Lebanon, Mo., in 1869 and on through Springfield to Pierce City, Mo., in 1870, and grading was completed to Seneca, Mo., on the Indian Territory border that same year.

In 1870, the South Pacific's line came once more under control of the Atlantic & Pacific, which had retained control of Fremont's St. Louis-San Francisco franchise and his land grant as well as control of the Pacific Railroad of Missouri.

Construction by the A&P proceeded rapidly. In 1871, the line was completed beyond Seneca to a junction with the Missouri, Kansas & Texas (MK&T) Railroad's north-south line at Vinita in Indian Territory, as A&P officers tried to persuade federal officials to abrogate a treaty with the Indians and give the railroad its land grant through the Cherokee Nation.

The government sided with the Cherokees in the dispute, and the A&P's end of track remained at Vinita until the panic of 1873 drove the Atlantic & Pacific into bankruptcy in 1875.

September 1876 saw final separation of the Pacific from its southwest branch, which was purchased by the newly organized St. Louis & San Francisco Railway Company, soon (and permanently) nicknamed the Frisco. Along with the track to Vinita, the Frisco acquired the A&P franchise and land grant, and for a short time the Golden Gate seemed in sight.

A typical locomotive from the era of railroad construction, Frisco #97 was originally built in 1880 for service between Fort Scott, Kan. and Springfield, Mo., while the railroad was being built from Kansas City to Memphis.

Santa Fe Railway Gains Control

But the Native Americans successfully continued to block survey and construction work on the line, and the Santa Fe Railway acquired control of the Frisco about 1879. The Santa Fe was able to use the A&P franchise and most of its land grant to build Santa Fe's own line from Albuquerque to California.

In the late 1870s, Frisco built a line westward from Pierce City to Wichita, Kan., to connect with Santa Fe's main line.

The early 1880s saw the Frisco headed south from Monett, Mo., with a line through the Boston Mountains of Arkansas to Fort Smith, through the

Choctaw Nation to Paris, Texas, and a connection with the Santa Fe's line to Dallas and Fort Worth.

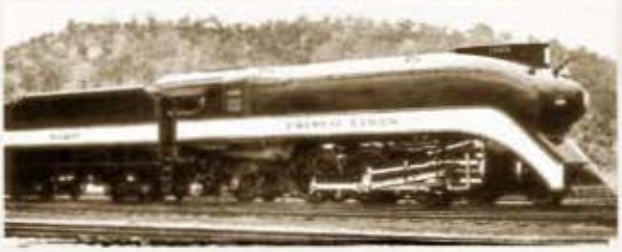
Transcontinental Dream Dashed

Frisco was able to extend its trackage from Vinita to Sapulpa, Okla., just west of Tulsa, in the early 1880s. The dream of a St. Louis-San Francisco transcontinental had been dashed, but Frisco had begun developing the western reaches of its system into their final form.

Expansion of the Frisco system ground to a halt in the late '80s, and Frisco was finally swept into bankruptcy along with the Santa Fe in the mid-1890s. It was reorganized in 1896 as the St. Louis & San Francisco Railroad Company.

With reorganization came General B. F. Yoakum as general manager; he was to serve the Frisco over the next 20 years as general manager, president and chairman of the board. During his administration Frisco would double in size and turn its eyes from the West Coast to the South.

Yoakum contemplated a system that would span the central section of the country from Chicago and the Twin Cities to the Gulf of Mexico and connect with the Mexican railroad system at the Texas border.



Frisco joined the streamlining craze of the 1930s with locomotive No. 1026 and the three-car Firefly train, which ran between Kansas City and Tulsa. Locomotive and cars were streamlined at the Springfield shops.

Frisco extended its Oklahoma line from Sapulpa through Oklahoma City to Lawton in the late 1890s, but the real expansion of Yoakum's Frisco came after the turn of the century.

Kansas City and Springfield Linked

Frisco completed its own line to the Dallas/Fort Worth area in 1901 through construction south from Sapulpa to Denison, Texas, and purchase of a 58-mile line from Sherman to Carrollton, Texas, near Fort Worth.

Perhaps the key addition of 1901, however, was the long-term lease by the Frisco of the Kansas City, Fort Scott & Memphis Railway Company's line from Kansas City southeast through Springfield and Memphis to Birmingham, Ala.

Frisco passenger locomotives were named after famous horses, including Cavalcade (above), Count Fleet, Gallant Fox, and Champion, the mount of former Frisco telegrapher Gene Autry.

Work on that line was begun shortly after the Civil War by the Kansas & Neosho Valley Railroad (K&NV), which planned a line south from Kansas City through Kansas, Indian Territory and Texas to the Gulf of Mexico.

Chanute Guided Tracklaying

Construction proceeded slowly until 1868, when the K&NV's assets were acquired by the Missouri River, Fort Scott & Gulf Railroad (MR,FS&G), and Octave Chanute – builder of the Hannibal Bridge across the Missouri at Kansas City – became the line's chief engineer.

Under Chanute, tracks were laid southward rapidly to Baxter Springs on the Indian Territory border in 1870. However, the MR,FS&G arrived too late at the border. The MK&T line from Kansas City had entered the Territory a few months before, thus winning for MK&T rights as the only north-south railroad permitted across Indian lands.

The MR,FS&G licked its wounds through the Panic of 1873 until Gen. George H. Nettleton arrived to take charge in 1874. Its race for Indian Territory lost, the MR,FS&G turned southeast and became the Kansas City, Fort Scott & Memphis Railroad (KC,FS&M).

The KC,FS&M completed its line to Springfield in 1881 and was operating through trains from Kansas City to Memphis just two years later. After a two-year pause at Memphis, the KC,FS&M completed its line to Birmingham in 1887 and finished its great bridge (replacing ferry service) at Memphis in 1892.

Yoakum Forges Rail Combine

Yoakum continued to pursue his dream through the first 10 years of this century. In 1902, Yoakum added the St. Louis, Memphis & Southeastern Railroad's line down the west bank of the Mississippi from St. Louis to Memphis, planning to extend that line down the west bank all the way to New Orleans.

In 1904, Yoakum added a 233-mile line from Ardmore, Okla., to Hope, Ark., with the expectation of extending it west to Colorado and east to connect with the west bank line, somewhere south of Memphis.

Yoakum added other shorter feeders throughout the Frisco system and longer feeder lines from Sapulpa through Enid to Avard, Okla., and south from Blackwell, Okla., to Vernon, Texas.

Although the west bank line had yet to be built, Gen. Yoakum added, through construction or control, other trackage from New Orleans west along the Gulf Coast to Mexico and in central Texas between Dallas/Fort Worth and the Gulf Coast lines.

Depression Bankrupts Frisco, Rock

Gen. Yoakum's dream was well on its way to becoming reality when the Depression of 1913 turned his dream into a nightmare.

The Gulf Coast trackage and the Texas lines south of Fort Worth also were split from the Frisco system. The west bank line would never be extended south of Memphis.

The Frisco came out of reorganization with its final corporate name – the St. Louis-San Francisco Railway Company – and a new president, W.C. Nixon.

Nixon worked hard with the remnants of Yoakum's dream, sprucing up passenger service (it was in 1917 that Frisco joined with the MK&T to operate the famed Texas Special) and in general, restoring a leaner Frisco to solid financial footing.

Nixon's plans were delayed, however, when the United States entered World War I and the Frisco, along with the rest of the U.S. rail system, came under federal government control. The experiment with nationalization came to an end in 1920, and the Frisco was returned to private ownership.

Trackage Reaches the Gulf

The most ambitious undertaking, of the '20s was construction of a link near Amory, Miss., on Frisco's Memphis-Birmingham main line, to the Gulf of Mexico at Pensacola, Fla., at last fulfilling the dream of Gen. Nettleton by linking his road to tidewater. The new line was opened with a grand excursion in the summer of 1928.

Elation at the Pensacola extension was short-lived, as the Frisco plunged into bankruptcy again in 1933, after being hit hard by the Great Depression.

No stranger to hard times, the Frisco struggled through the grim years of the Depression by constant economic measures, and was there when the nation called again at the beginning of World War II. Closing of the East Coast sea lanes by German U-boats put oceans of Texas and Oklahoma oil onto Frisco rails for movement eastward.

The railroad completed its 14-year reorganization in 1947 and Clark Hungerford was elected president of the Frisco. Under his direction, a railroad battered by Depression and strained by war-time traffic began rebuilding itself, while setting new traffic records.

Streamliners Introduced

With a flourish, the Frisco unveiled streamlined, diesel-powered versions of its Texas Special and Meteor passenger trains in 1947, and it began ordering diesel freight locomotives the next year.

Near the end of 1948, Frisco acquired control of the Alabama, Tennessee & Northern Railroad. Its line from Reform to Mobile, Ala., gave the Frisco access to a second Gulf port, connecting with the rest of the Frisco system at Aliceville, Ala.

Once begun, dieselization continued rapidly. The last steam locomotive was operated on February 28, 1952, making Frisco the first major railroad to become exclusively diesel-powered.

Modernization of the Frisco continued throughout the 1950s. Electronic hump yards were opened at Memphis in 1957 and at Tulsa in 1960. The Frisco also began work on a way to recapture automobile traffic from motor carriers. That work resulted in development of the tri-level auto rack car, now used by railroads nationwide.

Frisco's Meteor arriving at St. Louis' Union Station in 1946. The last Frisco passenger train ran in 1967.

Hungerford was succeeded as president by Louis W. Menk in 1962. Menk laid groundwork for consolidating all Frisco train dispatching in one suite of offices at Springfield in 1965. It was the first – and at the time the largest – such installation in the country.

Passenger Service Ends

Passenger service on the Frisco, sharply reduced in September 1965, ended completely December 8, 1967, when trains 101 and 102 completed their runs between Kansas City and Birmingham.

By the time Richard C. Grayson became president in 1969, Frisco was gaining a reputation as a leader in the development of new shipping techniques. In the 1970s, Frisco went through yet another period of rebuilding and modernization of its plant and equipment.

This era culminated in 1977 with a joint application to the Interstate Commerce Commission to merge the Frisco into Burlington Northern. The merger became effective November 21, 1980, adding to the BN system not only a strategically located railroad, but a proud tradition as well.

Tanning Hide Inspires Frisco Logo

The history of the St. Louis-San Francisco Railway logo has colorful and humble origins. According to the story, Gen. George H. Nettleton, the Frisco's general manager, stopped at a depot in Neosho, Mo., during an inspection trip. Nailed to the wall was a raccoon skin for drying. He asked the local agent what he was doing using company property for tanning hides. Figuring he was in trouble and maybe even on the verge of being fired, the agent explained that it was impossible to make ends meet with the low wages the railway paid. He needed to tan hides to make more money. To the agent's surprise, Gen. Nettleton bought the hide for "two bucks." Nettleton then gave the skin to a company draftsman to create a trademark and the design has changed only slightly over the years. The original coonskin was kept in the Frisco archives in St. Louis for many years.

BNSF'S PREDECESSORS

GREAT NORTHERN: JAMES J. HILL'S "GREAT ADVENTURE"

The epic completion of Great Northern Railway's transcontinental line to the Pacific in 1893 and the creation of Burlington Northern 77 years later were in a very real sense the fulfillment of one man's dreams. That man was James Jerome Hill, "The Empire Builder."

James Jerome Hill

But the railway which bore his unique stamp had its genesis even before Hill joined the railroad, and those who succeeded him in leadership made notable contributions of their own to its successful history, and to the merger which ultimately produced the closing chapter.

St. Paul & Pacific Begins Service

When Great Northern (GN) began planning a centennial observance, nearly a decade prior to the 1970 merger, it chose to commemorate not a "paper" beginning, but 100 years of actual service.

The benchmark for that occasion was the maiden run of a diminutive balloon-stack locomotive, the "William Crooks," and its two cars from St. Paul to the Village of St. Anthony, now Minneapolis. The date was June 28, 1862. The 10 miles of railroad, known grandiosely as the St. Paul & Pacific, was the first in Minnesota and much of the Northwest.

The pioneer line, which wouldn't become known as Great Northern until 1890, had its corporate origin in 1857 when the Minnesota legislature, eager for rails in its territory, granted a charter to the Minnesota & Pacific Railroad Company to "construct a railroad in the direction of the Pacific."

Some 62½ miles of roadbed had been made ready for rails when the Minnesota & Pacific, bogged down with delays precipitated by financial difficulties, forfeited its properties to the state. The St. Paul & Pacific Railroad Company, chartered March 10, 1862, acquired the rights, including land in Minnesota, and quickly completed the original 10 miles of line.

Meanwhile, young Jim Hill, age 18, had arrived in St. Paul from his birthplace near Rockwood, Ontario to begin his "great adventure." His very first job, in 1856, was in transportation as a shipping clerk in the office of a Mississippi River steamboat company. He watched and learned as rail expansion progressed slowly.

The "William Crooks," Great Northern's "Old No. 1," is pictured at Elk River, Minnesota in 1864. GN's pioneer locomotive was given to the Minnesota Historical Society in 1962 on the 100th anniversary of its maiden run.

In 1865 he entered the transportation field on his own account, representing a steamboat line connecting with eastbound rails at lower Mississippi River ports. A year later he was agent for the First Division of the St. Paul & Pacific. By 1870 he was in a partnership doing general business in wood, coal and commissions, and in another operating a steamboat service on the Red River of the North.

Hill and Friends Buy Pioneer Line

The affairs of the St. Paul & Pacific were in a steady decline in the 1870s, due to financial and other problems, with no funds in prospect to complete and connect its several unfinished lines. While the resources and possibilities of the region were ridiculed in the East, Hill saw great potential in the struggling railroad and the territory it eventually would serve.

In 1878 he persuaded three other men of vision to join him in acquiring the St. Paul & Pacific. One was Norman W. Kittson, his partner in the Red River Transportation Company. The others were George Stephen, president of the Bank of Montreal, who became Lord Mount Stephen; and Donald A. Smith, chief commissioner of the Hudson's Bay Company, who would be similarly honored as Lord Strathcona. Both subsequently gained fame as pioneer railway builders in Canada.

On May 23, 1879, following foreclosure proceedings, the properties were reorganized as the St. Paul, Minneapolis & Manitoba Railway Company, with Stephen as president and Hill as general manager. By now the new company had 50 miles under operation, all in the state of Minnesota.

Hill's early judgment of the prospective earnings of the railroad, if rehabilitated and properly managed, was thoroughly vindicated by the time he became

president in 1882. That year, notwithstanding large expenditures for improvements, a 7 percent dividend was paid to stockholders. For half a century thereafter, until 1933 during the Great Depression, the company maintained an uninterrupted record of dividend payments.

Colonization Was Key to Expansion

The expansion of the railroad in Minnesota and into Dakota territory continued at a steady pace, and by the close of 1885 the system of main and branch lines had grown to 1,470 miles.

It has been said of other sections of the West that they were settled from the ox cart; "Hill country" was settled from the box car. Hill laid his rails first, then labored tirelessly to create traffic for his trains. The success of his plans for rapid expansion depended upon quick and sound colonization. Having promoted his "country", it was up to him to "make good" after the settlers moved in.

So he started showing the farmers how to improve their methods, and in the process became an authority on agriculture and livestock. He was an early advocate of diversification and conservation of natural resources. He imported purebred stock; introduced improved strains of seed; and established experimental farms and credit facilities for producers. Plus, he held rates at a level which would enable settlers to sell their products competitively in distant markets.

This scene from the record-breaking year of 1887 shows track being laid across virgin prairie in Dakota Territory.

"Rocky the Goat" Symbolized GN

The first Great Northern trademark was adopted in 1890, but it wasn't until 1921 that the endeared symbol of "Rocky the Goat" would be created. Rocky the mountain goat – which made his home on the peaks of Glacier National Park – became Great Northern's trademark feature for nearly 50 years. Rocky was GN's singing spokesman on radio and television and he was so popular that young fans by the thousands wrote for his "autographed" portrait.

The formula enabled Hill and his associates to expand their mileage rapidly without land grants or government subsidies of any kind, other than the limited original grant of the Minnesota & Pacific.

1887 Construction Set New Records

In 1886, the main line of the St. Paul, Minneapolis & Manitoba was extended westward from Devils Lake to Minot, Dakota Territory, to set the scene for one of the great epochs of railroad construction.

Between April and mid-October 1887, 545 continuous miles of line, reaching across largely unsettled wilderness all the way from Minot to Great Falls, Montana Territory, was graded, bridged and laid with track.

The logistics of an operation so distant from sources of supply were staggering, with 8,000 men and 3,300 teams pushing the construction. In one all-time record day, August 11, 44,100 feet of track was laid.

By November 18, another 96½ miles were completed between Great Falls and Helena by the subsidiary Montana Central Railway Company, bringing the season's total to 641½ miles. At Helena the new line connected with the Northern Pacific, which had been completed to the Pacific Northwest four years earlier.

The Minneapolis & St. Cloud Railway, chartered in 1856 by the Minnesota legislature, remained a "paper company" until acquired by Hill in 1881 for its charter rights, which were broader than those of his Manitoba Company.

Line Named Great Northern in 1890

On September 18, 1889, the name of the Minneapolis & St. Cloud was changed to Great Northern Railway Company. On February 1, 1890, the Great Northern took over the properties of the St. Paul, Minneapolis & Manitoba.

The new era began auspiciously. That winter, on December 11, in 40-below-zero weather, Engineer John F. Stevens had found the long-elusive Marias Pass, offering a superlative low-level route over the Rockies at only 5,213 feet above sea level.

Construction of Great Northern's Pacific Coast extension began early in 1890 at Pacific Junction, four miles west of Havre in what now was the fledgling State of Montana. Between here and Puget Sound lay 815 miles of mostly wild and rugged mountain land. Except for the town of Spokane, Wash., it was virtually uninhabited.

At the close of 1892, less than three years later, only a seven-mile gap remained in what once was referred to as "Hill's Folly." On January 6, 1893, in the towering Cascades near Scenic, Wash., the final spike was driven.

Regular service between Seattle and the East over the new transcontinental line began in mid-year. Great Northern trains had been operating to Portland, however, since 1891, with running rights over the line of the Oregon Railway & Navigation Company from Spokane.

The panic of 1893 swept a fourth of the nation's railroad mileage into receivership, including the Northern Pacific, which prompted Hill's first effort to unify the operations of the two lines. However, a plan in which Great Northern would agree to guarantee both the principal and interest on bonds of the reorganized Northern Pacific was found by the Supreme Court to be in conflict with a Minnesota statute

"Minnesota" and "Dakota" were the world's largest cargo vessels when built by Great Northern Steamship Company for trade between Seattle and Asia. Pictured with the ships in 1905 is the "Oriental Limited" passenger train.

prohibiting consolidation of parallel and competing lines.

1901 Saw Second Attempt at Merger

Another precursor of the Burlington Northern merger was Hill's second attempt at unification through formation of a holding company in 1901. The Supreme Court held this plan to unite the Great Northern, Northern Pacific and Chicago, Burlington & Quincy railroads in violation of the Sherman Act.

Hill abhorred an empty box car, and the normal movement of freight over his newly completed Pacific Coast extension was certain to be preponderantly westbound. To avoid the waste of hauling empty cars eastbound and to develop the lumber industry in his territory, he drastically reduced lumber rates, opening new markets in the Mississippi and Ohio valleys to Pacific Northwest mills.

Completion of Great Northern Railway's line from St. Paul to Puget Sound was marked by a simple and unheralded spike-driving ceremony January 6, 1893, near the present station of Scenic, Wash.

Service to Orient Is Established

In 1896, he negotiated an agreement with Nippon Yusen Kaisha (NYK), the largest steamship line in the Pacific, resulting in the establishment of service between Seattle and Asian ports. It was a bold challenge to the established commerce between Europe and the Orient, and marked the beginning of Seattle's ascendancy as a world port. NYK and Great Northern established rates that soon enabled them to gather up steel rails from as far east as Pittsburgh, flour from Minneapolis and cotton from the South for shipment to the Orient.

By the close of 1900, new construction and acquisition of existing lines had boosted Great Northern's operation to more than 5,000 miles, and a direct route to Chicago had become a competitive necessity. In 1901, Hill negotiated the purchase by Great Northern and Northern Pacific of nearly all of the outstanding stock of the Chicago, Burlington & Quincy Railroad, giving the parent lines access to Chicago and the markets of the Midwest and South.

The building of a railroad never ends, and Great Northern lines constantly were upgraded and frequently relocated for more economical operation and better service.

Major changes in the first two decades following the Pacific Coast extension included the original 2.6-mile Cascade tunnel in 1900 to eliminate a series of hazardous switchbacks over Stevens Pass; a 69-mile relocation of the main line between Columbia Falls and Rexford, Mont., in 1904; and completion in 1912 of the Surrey cutoff between Fargo and Surrey, N.D., reducing Great Northern's transcontinental route by 52 miles.

Meanwhile, in 1905, under Hill's aegis, the Great Northern and Northern Pacific formed the Spokane, Portland and Seattle Railway Company, which built a line from Spokane to Portland, and subsequently acquired other lines in Oregon by purchase, lease and construction. Important new markets and sources of freight resulted.

On his retirement in 1912 from the chairmanship and active direction of the railroad system his genius had created, Hill said: "Most men who have really lived have had in some shape, their great adventure. This railway is mine." He died in St. Paul on May 29, 1916.

Installation of ventilating equipment in the Cascade Tunnel in 1956 permitted operation of diesel locomotives through the eight-mile bore and ended electrification. The project included rebuilding the east portal, seen here.

The decade 1920-1930 was one of brilliant achievement by Great Northern under the presidency of Ralph Budd. Improvements to the railroad in that period totaled $160 million, including two major engineering projects which attracted worldwide attention.

The weakest link in Great Northern's route to the coast was its line across the Cascades, costly to operate, difficult to

The "Empire Builder" crosses the Continental Divide at Marias Pass. The first streamlined edition of this famed train came in early 1947. A second completely new fleet followed in 1951, with dome cars added four years later.

maintain, and conspicuously out of place in a system that had the shortest line between the Great Lakes and the Pacific, with the least curvature and lowest grades.

On Thanksgiving Day 1925, the railway's directors authorized construction of an eight-mile tunnel, the relocation of all but seven miles of the 50-mile line between Peshastin and Scenic, Wash., the elimination of nearly 12 miles of tunnels and snowsheds, and the electrification of 75 miles between Wenatchee and Skykomish, Wash.

Total cost of the historic project was approximately $25 million, and its completion on January 12, 1929, was announced by a nationwide radio broadcast in which President Herbert Hoover participated. The Cascade Tunnel, straight as a rifle bore, is still the second longest in the Western Hemisphere. (Third longest is the seven-mile Flathead Tunnel in northwestern Montana, begun by Great Northern in 1966 and completed by Burlington Northern in 1970.) Operations through the Cascade Range were fully dieselized in 1956.

The second major project of the Twenties was Great Northern's California extension through central Oregon, beginning in 1927 with 68 miles of construction from Bend to Chemult, Ore. Trackage rights over the Southern Pacific provided a link to Klamath Falls, Ore. Great Northern then built from there into California 92 miles while the Western Pacific was building north 112 miles from Keddie. The two lines met at Bieber, Calif., on November 10, 1931.

With the addition of California, Great Northern now served 10 states and two Canadian provinces – Minnesota, Wisconsin, North and South Dakota, Iowa, Montana, Idaho, Washington, Oregon, California, Manitoba and British Columbia.

First Empire Builder Inaugurated

Completion of the new Cascade crossing in 1929 presaged the inaugural in June that year of the first of Great Northern's famous Empire Builder passenger trains, operating daily between Chicago and the Pacific Northwest. Great Northern not only provided an outstanding passenger service through the years, but was in the forefront in developing and promoting western tourism. The railway was particularly identified with Glacier National Park, in Montana, where it owned and operated hotels and other facilities until their sale in 1960.

World War II saw Great Northern busy as a vital military supply line, with all-time records for freight traffic set consecutively in 1942, 1943 and 1944. An all-time record passenger year was recorded in 1945.

The post-war years brought a virtual revolution in railroading, paced by dieselization of the motive power fleet. The "iron horse" that built the West saw its last service on Great Northern in 1957.

Centralized traffic control, train radio, continuous welded rail, computerization, electronic classification yards, specialized freight equipment and handling, and a host of other innovations not only accelerated the pace of railroading but also contributed immensely to the increased productivity which enabled railroads to keep rates stable and remain competitive. Great Northern, down through the years to merger, continued to earn recognition as one of the most progressive railroads in the nation.

Great Northern's last major line change was a multi-million-dollar improvement project in the Cascades, begun in 1961 and completed in 1968, which included a new bridge across the Skykomish River.

SANTA FE: THE RAILWAY BUILT ALONG THE "TRAIL OF FAITH"

The story of the Atchison, Topeka & Santa Fe Railway (Santa Fe) is the story of the Southwest and mirrors the same spirit of the early pioneers who ventured into this developing territory, their wagons and pack mules loaded down, their dreams of prosperity propelling them forward. The Santa Fe was said "to start nowhere and go nowhere," but as the nation's second transcontinental rail line, it eventually would connect the growing towns in what are now Kansas, Colorado, Oklahoma and Texas to the Pacific Coast and parts of the Midwest.

Among the reasons a second transcontinental railroad was encouraged in the mid-1800s: the rush to California following the discovery of gold there, prosperous cattle drives from Texas to Kansas City, and the booming population of Kansas, where "sod busters" had produce and crops that needed to be moved to markets.

But a rail line in the country's southwest quadrant was needed for more than just satisfying the grand visions of those seeking fortune in the fertile lands and mineral deposits of the West. It was a necessity to grow commerce, chiefly that of the Santa Fe Trail, a 780-mile-long transportation system. Considered a great highway of riches, adventure and hardship, the trail was established by Spanish conquistador Francisco Vasquez de Coronado in the mid-16th century. Over the next 200 years, traffic and commerce along the "Trail of Holy Faith" expanded and Santa Fe, N.M., would become the trade center of the Southwest.

Establishing rail transportation in this romanticized "promised" land would not be easy. Only a few frontier towns existed. The nation was gearing up for a civil war. The railroad's leaders sought financing. And the country was experiencing slow growth. It would require a visionary to overcome the many obstacles Santa Fe faced in its infancy.

Cyrus K. Holliday's Dream

Father of the Santa Fe, Cyrus Kurtz Holliday was born in Pennsylvania in 1826, and migrated to Kansas in 1854. A lawyer by training, but a promoter by trade, Holliday took a leading part in founding Topeka and was its first mayor. He would hold numerous local and state positions in his lifetime, but his most ambitious pursuit was in promoting his railroad.

Cyrus K. Holliday

Early on Holliday saw the promise a railroad paralleling the Santa Fe Trail held. In 1859, he single-handedly wrote the charter for the fledgling Atchison & Topeka Railroad. A member of the Kansas Territorial Legislature, Holliday introduced the charter Feb. 1, and it was signed 10 days later.

But drought in the territory and war between the states made it difficult for Holliday to raise capital. Land grants needed to be secured so Holliday again put pen to paper and drafted a land-grant instrument that Sen. Samuel Pomeroy sponsored. The bill was signed by President Lincoln March 3, 1863, granting land to the state of Kansas for the purpose of "aiding in the construction . . . of a railroad from the City of Atchison via Topeka . . . to the western line of the state, in the direction of Fort Union and Santa Fe, New Mexico...." The act also required the line be in operation in 10 years, a requirement that would test the fledgling railroad in the coming decade.

In an effort to make the railroad's name more inclusive, the words "Santa Fe" were added in 1863. (The only other change to be made to the company's name came in 1895 due to financial reorganization, when "railroad" became "railway.") In July 1868, Congress authorized Santa Fe to purchase unallotted but fertile lands of the Pottawatomie Indian Reservation near Topeka for $1 an acre. The acquisition gave the company much-needed financial leverage. Holliday wrote: "The child is born and his name is 'Success.' – The Santa Fe Railroad will be built beyond peradventure...."

The Wakarusa Speech

On Oct. 30, 1868, almost a decade after the Santa Fe charter was signed, the first spade of earth was turned at Topeka. Rather than constructing from Atchison, Kan., the line was built southwest from

The first run of the California Limited between Chicago and Los Angeles in 1892 marked the beginning of Santa Fe's premier passenger train service.

Topeka to Burlingame, Kan., due to nearby coal deposits in which Holliday had a financial interest. In order to secure supplies, a bridge was built on the north side of the Kaw River to connect with the Kansas Pacific and completed on March 30, 1869. Track laying began and by spring, seven miles of track had been laid.

On April 26, 1869, the Wakarusa Picnic Special, a two-car excursion train using borrowed equipment and the Santa Fe's first locomotive, the Cyrus K. Holliday, departed from Topeka to Wakarusa, a distance of 12 miles (seven by track, with the balance of the trip made in carriages). It was at this prairie gathering Holliday made his famous Wakarusa speech, asserting the railroad would be built to Chicago, St. Louis, Mexico City, San Francisco and Galveston, Texas.

While many would laugh at Holliday's vision and consider his ideas lunatic, William Allen White, the famous editor of the Emporia Gazette, would one day write: "The Santa Fe is the best thing that ever happened to Emporia. It is one of the best things that ever happened to Kansas. It is easily one of the best things that ever happened to this land...."

Within a year of the Wakarusa speech, the line reached Emporia, Kan., and from there, to Newton, Kan. Mileage was quickly added: from Topeka to Atchison; a branch from Newton to Wichita, Kan.; then west to Colorado under the direction of engineer Albert Alonzo Robinson. When it reached the Kansas-Colorado border in December 1872, a three million-acre land grant was secured.

Under the presidency of Ginery Twichell until May 1873, the railroad would continue to be guided behind the scenes by Holliday, who wanted to ensure his railroad and his adopted state would thrive. His association with the railroad would last for more than 40 years. Holliday died in 1900.

Leveraging Land to Attract Immigrants

Like other railroads, the Santa Fe's land grant program helped populate the West.

The ATSF Land Department's ability to attract immigrant settlers to what had been desolate plains helped turn Kansas into the nation's breadbasket.

In 1872, the railroad established land agent offices in new towns that developed as track was built west. Agents pushed sale of the land to easterners, offering special rates with the ticket price applied to the purchase of land.

One of the largest colonies ever established by the Santa Fe Land Department was near Newton in 1874, when more than 8,000 Russian-born Mennonites migrated to the Plains State. They left their homeland, where military service was to become compulsory, because they refused to bear arms.

Despite disaster from drought and grasshoppers, the Mennonites raised crops in what before had been desolate plains. The hard red wheat seed they brought with them helped make Kansas the nation's breadbasket.

Santa Fe land department offices were established in London in 1880, with recruiting offices in France and Germany. Immigrants came from Sweden, Wales, Scotland and other European nations. By 1886, the land grant acreage was completely sold and in 1897 the Land Department was discontinued. But the railroad would continue to actively settle developing territories, including Texas and New Mexico.

Hard Times . . .

Construction on the railroad slowed as other companies collapsed during the 1873 Depression. Funds were low, but the railroad stayed solvent while thousands of businesses folded, including many railroads. Thomas Nickerson became president of the railroad in 1874 and was known for his genius as a financier, but his administration was during a period of hard times. Kansas was hit in 1874 with a grasshopper plague so bad that wheels of locomotives slipped on starts. If it wasn't bugs, it was often buffalo that interfered with train operations as unmovable herds often blocked the line. Dry conditions in the summer and sparks from locomotives were bad combinations resulting in prairie fires. In the winter, blizzards brought heavy drifts of snow. On a few occasions, Indians and robbers endangered the trains and their passengers.

Recognizing that business in this unpopulated, uncooperative land would have to be created, Santa Fe advertised Kansas heavily to the rest of the union. It hauled seed grain without charge, and provided shelter and relief during hard times.

Considered a risk-taker by some, the railroad began to steadily grow – physically and financially. In 1875, Santa Fe entered Kansas City from Topeka by leasing short lines, an important connection for grain and cattle traffic. Under Santa Fe backing, the Pueblo & Arkansas Valley Railroad soon entered Las Animas, La Junta and Pueblo, Colo.

. . . Strong Times

William B. Strong from the Chicago, Burlington & Quincy joined Santa Fe as general manager in 1877, and in 1881 he was made president. Strong and engineer

A Blend of Cultural Symbols

Like many railroads in the 19th century, Santa Fe experimented with several trademarks. In the late 1890s a Santa Fe vice president called together several staff members to solicit ideas for a new mark. One of them was J.J. Byrne, a passenger traffic manager who also was a student of the Southwest and its primitive arts. Legend has it that he used a silver dollar to make a circle and then drew in the cross, which was symbolic of both the Native Americans and the Spanish Christians who had settled in the Southwest. Byrne then drew the words Santa Fe on the cross's traverse bar and enclosed the circle in a box. In 1901, the Santa Fe officially adopted the new trademark, which endured throughout the railway's rich heritage.

Robinson expanded the railroad in empire-builder fashion.

Strong aspired to build the railroad into New Mexico, but another railroad, the Denver & Rio Grande (D&RG), had a similar ambition. The D&RG's line ran south of Denver, paralleling the Rockies, and it eventually hoped to handle the exchange of traffic between transcontinental rails. The D&RG line ended just north of Trinidad, Colo., into which the Santa Fe entered from the east.

South of Trinidad lay Raton Pass, the only practical rail route from Colorado to New Mexico. In 1878, Strong ordered Robinson to occupy and hold Raton Pass. Robinson secured an agreement to build the railroad over the pass and occupied it with his men, beating D&RG's construction crew from beginning its work by a matter of hours. Months later, the first train would enter New Mexico via switchbacks over the pass. (The main line was not built to Santa Fe due to difficult terrain, but a branch line would serve the city.)

Santa Fe's triumph over D&RG would be short lived. West of Pueblo lay rich silver deposits near Leadville, Colo. D&RG and Santa Fe both wanted to secure traffic to the mining area, but the only feasible route was through the Royal Gorge, a canyon that would not accommodate two lines. A "war" between the roads ensued in 1878, with "armies" enlisted for both sides to seize control of the canyon. Most of the fighting, however, was conducted in the courtroom. The Supreme Court would rule the D&RG had prior right to build this route, with use to be shared by both railroads. By 1880, Santa Fe dropped its plans for a Leadville extension.

Connection to Mexico was another prime objective of the railroad under Strong's leadership. The Sonora Railway Co. was organized in 1880 for the purpose of building a railroad from the border at Nogales, Ariz., through Mexico to Guaymas on the Gulf of California. Work began at Guaymas in 1880, with 90 miles laid north to Hermosillo by 1881. An agreement was soon made with the Southern Pacific (SP) allowing Santa Fe to use its rails from Deming to Benson, Ariz. The New Mexico and Arizona Railroad Co. was incorporated in 1882 and started building from Benson toward Nogales; nine months later, the two lines met. This meant Santa Fe finally reached the Pacific outlet. The line's completion gave Santa Fe claim to the longest rail line under one management in the world.

Harvey Houses

Santa Fe history is not complete without reference to Fred Harvey, who in 1876 began operating the Topeka lunchroom for Santa Fe employees. In 1878 Harvey contracted with the railroad to operate a hotel at Florence, Kan., where passengers could find good eating and pleasing accommodations. The concept rapidly caught on and a chain of hotels and restaurants followed. Known as "Harvey Houses," the institution was considered the "greatest civilizing influence in the West."

The "Harvey Girls" made their debut in 1883, when at the urging of the Raton, N.M., manager, an all-female waitress staff was hired. In 1888 Harvey's services expanded to include the introduction of Santa Fe dining cars. With the slogan, "Maintenance of standard regardless of cost," the Harvey System helped Santa Fe passenger train service earn the reputation as one of the finest and most respected in the nation. At the end of 1968, the era of Harvey operation of dining cars came to an end, but some of the country's most luxurious hotels, including La Posada in Winslow, Ariz., the La Fonda in Santa Fe, and The Castaneda in Las Vegas, N.M., were first erected as Harvey Houses. El Tovar, at the south rim of the Grand Canyon, is also a lasting reminder of the era's luxury accommodations.

Looking Westward

In July 1879, Las Vegas, N.M., was reached – 114 miles from the Colorado boundary. After arriving in Albuquerque in 1880, the main line was built quickly toward Deming, and on March 8, 1881, the nation had its second transcontinental railroad when Santa Fe connected to the Southern Pacific. While the Santa Fe

Many of the luxury hotels along Santa Fe's route through the Southwest, such as the La Posada Hotel in Winslow, Ariz., above, were first built as Harvey Houses.

finally had access to the Pacific, the connection was not all it desired. The railroad wanted its own route to the coast. Attempts to extend its line into California to reach the San Francisco and San Diego ports were thwarted by competitors.

On Jan. 31, 1880, Santa Fe acquired one-half of Atlantic & Pacific Co. (A&P) and agreed with the other principal, the St. Louis & San Francisco Railway Co. (Frisco), to build the Western Division of A&P from New Mexico to California. The A&P was quite a gem, holding a Congressional land grant of millions of acres of land (though much of it wasteland). The A&P project would give the Santa Fe the means it sought to develop Pacific Coast traffic.

Later that year, the California Southern was organized to construct the line from San Diego through San Bernardino to meet the A&P. But it would take years of compromise, court orders and trackage rights agreements before Santa Fe reached the coveted ports of San Diego and San Francisco. Santa Fe continued to expand its California trackage by acquiring smaller lines. A line was built into Los Angeles in 1887.

That same year, construction crews moved south from Arkansas City, Kan., through Indian Territory (Oklahoma), while the Gulf, Colorado and Santa Fe (GC&SF), a Galveston, Texas-based railroad, was building north. When it fell on hard times, Santa Fe purchased the line and built north from Fort Worth to connect with the Arkansas City line.

While rail was being laid into Indian Territory and the Texas Panhandle, the Santa Fe management knew it needed to build eastward toward Chicago, the "railroad capital," to stay competitive. In less than a year, 350 miles of new rail were laid and 100 bridges built, with the first train reaching Chicago in 1888.

Less than 20 years after the little 136-mile Kansas railroad Holliday had begun, the Santa Fe system extended from Lake Michigan to the Pacific Coast, from Denver to the Gulf of California, and from Kansas to the Gulf of Mexico. But in 1889, after Santa Fe's new lines failed to earn profits, William Strong resigned as president under pressure from the board.

The famous "Harvey Girls" not only helped make Fred Harvey's chain of hotels and restaurants a success, they also helped Santa Fe develop a reputation for some of the best rail passenger service in the nation.

Receivership

At the end of 1887, Santa Fe was considered a healthy company, owning, operating or controlling 7,373 miles of railroad. But financial trouble was brewing. In 1890, the railroad purchased the outstanding stocks of the Colorado Midland Railway Co. and the Frisco through an exchange of stock. Other lines were over expanded. The company was in debt. Bankruptcy was delayed, but in 1893, when credit was refused, the company was placed in receivership.

Interest in the Colorado Midland Railway Co. was immediately sold and on Jan. 1, 1896, the new company emerged as The Atchison, Topeka & Santa Fe Railway Company with 6,435 miles of track and other holdings. Edward P. Ripley was elected president and among his first undertakings was to sell the company's share of the Frisco.

Glory Days of Passenger Service

In 1892, the first run of the California Limited was operated between Chicago and Los Angeles, ushering in an era of distinctive passenger train service. Like other railroads at the turn of the century, the Santa Fe ran a special to generate nationwide interest in a train's race against time. To attract attention to its passenger, Walter "Death Valley Scotty" Scott, the Coyote Special operated July 1905, running from

The Santa Fe and Frisco joined forces in the 1880s to jointly continue building track to California.

Santa Fe commissioned some of the country's great works of art such as Walter Ufer's "Taos Girls," in an effort to attract passengers to the scenic wonders of the Southwest.

Los Angeles to Chicago in 44 hours, 54 minutes at an average speed of 50.4 mph, helping establish Santa Fe's reputation as a fast railroad.

In 1911, Santa Fe began operating the DeLuxe, weekly extra-fair train service between Chicago and Los Angeles, which was "limited to 60 people." Santa Fe's rich passenger train heritage included trains like the El Capitan, The Grand Canyon, The Kansas Cityan, The Chicagoan, The Texas Chief, The Scout San Diegans and the San Francisco Chief.

While the Santa Fe was not the first railroad to use diesel-electric locomotives, it was the first to use them in all three types of service – passenger, freight and switching. Its No. 2 diesel was the first to carry the symbolic red and silver Warbonnet paint scheme, introduced in 1937.

To promote travel in Santa Fe territory, depots and stations were upgraded. Artists and architects were subsidized to popularize the railroad's heritage, including Mary Colter, who was hired to design depots. The Passenger Department promoted the West to easterners, luring them to the wonders of the Grand Canyon and Colorado. Artists and writers worked in tandem to promote the railroad's passenger service through newspaper ads. Plush passenger cars, including sleepers, lounge cars and diners, were purchased. Speeds of passenger trains were advanced and Santa Fe earned a reputation of being the premier carrier west of Chicago.

With the development of a highway system and airline service, however, passenger train service became unprofitable, prompting Santa Fe to exit the business entirely in 1971.

Service, Equipment Innovations

In 1931, Santa Fe was the longest railroad in the U.S., with 13,568 miles of track. But following the Dust Bowl, the Depression and the depopulation of the Plains, the railroad was forced to abandon lines. During World War II, scrap from branch line abandonments was given to aid the war effort.

In the early 1950s, the railroad began experimenting with piggyback operations which, decades later, would become Santa Fe's most important type of freight traffic. In 1985, the company began doublestack operations and in 1990, Santa Fe and J.B. Hunt formed Quantum marketing, a partnership carrying truck traffic by rail.

Santa Fe has been known for more than just its signature look. The railroad also carried a reputation as a service innovator. During the '60s, the company designed a multi-level rail car. In 1968 Santa Fe introduced a "land bridge," attracting traffic away from the Panama Canal by reducing transit time. In 1978, its Topeka Shops built "Fuel Foilers," articulated 10-unit spine cars for long-distance intermodal service. The articulated Autoveyer was introduced in 1992.

A New Wave of Mergers

Considered long-time rivals, the Santa Fe and Southern Pacific (SP) became allies in 1980 when merger talks between the two railroads commenced. The discussions were in response to rival Union Pacific's Missouri Pacific-Western Pacific merger, but Santa Fe-SP merger discussions terminated later that year. The second Santa Fe-SP merger attempt in 1983 was rejected in 1986 by the Interstate Commerce Commission (ICC) on the grounds it would be anti-competitive.

The Santa Fe has created one of the longest and proudest legacies in the history of American railroading, helping to define, promote and develop an entire region of the country.

The Super Chief, shown here in New Mexico, was Santa Fe's premier daily transcontinental train. Its famous red and silver paint scheme was introduced in 1937.

BNSF'S PREDECESSORS

NORTHERN PACIFIC: FIRST NORTHERN TRANSCONTINENTAL

Etched indelibly in the history of the Northern Pacific – first of the northern transcontinentals – are the names of visionaries who, long before the railroad was built, recognized the vital need for a rail line spanning the continent from Lake Superior to the Pacific.

Dr. Samuel Bancroft Barlow of Massachusetts championed a northern line as early as 1834. Eleven years later, Asa Whitney conducted explorations nearly 1,500 miles up the Missouri River, returning to urge Congress to charter and authorize construction of a railroad along the northern route.

Edwin F. Johnson, an eminent engineer, made intensive studies in the early 1850s and published a widely circulated book advocating a northern transcontinental line. In 1853, after considerable debate over competing routes, the U.S. Congress voted an appropriation for five separate surveys.

Commissioned to survey the northernmost route was Isaac I. Stevens, an experienced Army officer and first governor of Washington Territory. His comprehensive, two-volume report showed the route to be a very favorable one, rich in natural resources and potentially of great economic importance to the growing nation.

Finally, there was Josiah Perham of Massachusetts, who made intensive efforts to persuade Congress to authorize construction of the Northern Pacific and later became the company's first president.

Act Creating NP Signed by Lincoln

The vision and persistent labors of these men bore fruit on July 2, 1864, when President Abraham Lincoln signed an Act of Congress creating the Northern Pacific Railroad Company (NP). It would have its eastern terminus at Lake Superior and its western terminus at Puget Sound. Much of its route would follow the trail blazed by Lewis and Clark on their landmark expedition across the unchartered West in 1804-06.

President Abraham Lincoln

The Act provided for a right-of-way through public lands 200 feet on either side of the tracks, as well as ground for station buildings and other railroad facilities. Also provided were grants of land which could be sold by the company to finance construction through the largely unsettled and unproductive territory.

But the land was of little or no value without the railroad, nor did it serve as a stimulus to the selling of stock as had been hoped. Additionally, the Act specifically forbid the company from issuing bonds or imposing mortgages on its property. As a result, the pioneer incorporators, with all of their enthusiasm and energy, were faced with almost insurmountable obstacles in progressing the ambitious project.

The impasse wasn't resolved until 1870, when Congress authorized the Northern Pacific to issue bonds to aid in construction and to secure the bonds by a mortgage on all of its property and rights of property, including its franchise as a corporation. Bonds were issued and the banking house of Jay Cooke and Company was appointed to sell the bonds and handle the company's finances.

Ferries carried NP trains across the Missouri River before completion of Bismarck bridge in 1882. During the winters of 1879-82, passage over the frozen river was on track laid across the ice.

Construction Begins in Minnesota

A formal groundbreaking ceremony February 15, 1870, near the present town of Carlton, Minn., a few miles west of Duluth, Minn., marked the start of the Minnesota Division of the Northern Pacific Railroad company. Actual construction began in July, with adequate financing assured.

The first stirrings of activity on the west end of the projected transcontinental line came at about the same time, the initial goal being to link Portland, Ore., and Tacoma, Wash. Completion of the segment between Kalama, Wash., on the north bank of the Columbia River, and Tacoma came in 1873. Much of the

General George Armstrong Custer is pictured with some of his scouts in the early 1870s while assigned to protect Northern Pacific surveyors and construction crews in Montana Territory.

material and equipment for this first standard-gauge railroad in Washington Territory was shipped around Cape Horn from the Atlantic seaboard.

That same year tracks from the East reached Bismarck and the Missouri River in Dakota Territory. A year earlier the fledgling company had leased the Lake Superior & Mississippi River Railroad, giving it a line between Duluth and St. Paul.

At this juncture, construction ground to an almost complete halt as the Great Panic of 1873 brought failure to Jay Cooke and Company and bankruptcy to the railroad. Five years would pass before new financing could be obtained and progress resumed.

Reorganization and refinancing under the presidency of Frederick Billings breathed new life into the company, and in 1879 the westward march began anew. Tracks reached the eastern boundary of Montana Territory in 1881, and by July 5 that year the railroad added Glendive, Mont., to its route.

Construction up the Yellowstone Valley from Glendive proceeded rapidly during 1882, with the season's work ending at Livingston, Mont., in November. During this period the company was faced with acute shortages of both labor and material. The first was resolved by importing from China 15,000 of the required 25,000 laborers. Because of a domestic steel shortage, it was necessary to import rails, plates and spikes from France and England.

Meanwhile, taking advantage of trackage completed by the Oregon Railroad & Navigation Company between Portland and Wallula, in southeastern Washington, the NP rapidly pushed its eastward construction from that point. By the spring of 1883, only 300 miles remained between the two railheads.

Delayed construction of the Pacific Coast line was resumed in 1883, with a September completion of the remaining segment between Goble, on the south bank of the Columbia River, and Portland. A large car ferry bridged the river between Kalama and Goble. Operations on an extension to Seattle began in July 1884.

It was under the dynamic leadership of Henry Villard, who became president of the Northern Pacific in 1881, that the lines from the East and the West were finally joined.

Villard had emigrated from Germany in 1853 at the age of 18, studied law and subsequently became a distinguished journalist. He reported the Lincoln-Douglas debates and the Chicago convention where Lincoln was nominated for president. In Washington he covered the political front for a syndicate of newspapers, and as a war correspondent he chronicled important engagements of the Civil War.

Villard's entry in the transportation field came on a visit to Germany, where a group of European financiers persuaded him to represent them in protecting their investments in American railroads. He not only served his clients well, but soon organized his own company, which eventually led to control of the Northern Pacific.

Henry Villard

Completion of the first of the northern transcontinentals was the signal for a lavish celebration at Gold Creek, Montana Territory, where tracks from the East and the West were joined on September 8, 1883.

Arriving by special train were distinguished guests from the United States, Germany, England and the Scandinavian countries. Witnessing the ceremony were cabinet officials; 10 United States senators and three former senators; 20 congressmen and four former congressmen; nine governors of states and four ex-governors; 25 of the nation's top railroad executives; judges; mayors; and 50 journalists.

After the oratory, 300 men quickly laid the rail and drove the spikes on the last

In this stylized painting of the completion of the Northern Pacific at Gold Creek, Montana Territory, former President Ulysses S. Grant is shown raising the maul to drive the ceremonial last spike.

thousand feet of track. The ceremonial "last spike" – not gold – was driven by former President Ulysses S. Grant and Henry Villard. It was the same spike used 13 years earlier to mark the beginning of construction near Carleton, Minn.

Joining of the rails at Gold Creek marked the first through-route from Lake Superior to the Pacific Coast, but not the end of construction. It was still necessary for Northern Pacific trains to run over the rails of the Oregon Railroad and Navigation Company from Wallula to Portland. To comply with its charter requirements, the NP had to build a line from Wallula to Tacoma.

Crossing the rugged and heavily forested Cascade Mountains took from 1883 to 1887, and was fraught with engineering and construction problems. The pioneer line ascended the steep mountain grades on switchbacks until completion of the 1.8-mile Stampede Tunnel in 1888.

Rapid Growth Follows NP Completion

Less than seven years after Gold Creek, and within three years of the Cascade line completion, the entire tier of northwest territories had sufficient population to join the Union. North Dakota entered on November 2, 1889; South Dakota, which derived much of its population through immigration over the Northern Pacific, came in the same day. Six days later, on November 8, Montana achieved statehood, followed by Washington on November 11. Idaho joined the ranks July 3, 1890.

The growth and ultimate admission of these states into the Union tell a graphic story of the part played by Northern Pacific in the settlement and development of the Northwest.

Fiscal Crisis Brings Receivership

In the decade following completion of the transcontinental line, the NP turned its energies to constructing branch lines and expanding its operating and other facilities. As the territory prospered, so did the railroad.

The financial crisis which swept the country in 1893 forced a number of lines into receivership, among them the Northern Pacific. The receivership ended in 1896 when the property of the railroad was sold to a new corporation called the Northern Pacific Railway Company. Successfully reorganized on a sound financial basis and with continuing improvement in business conditions, the future brightened for the new company.

Burlington Purchased by NP and GN

In 1901, the Northern Pacific and Great Northern jointly purchased nearly all of the outstanding stock of the Chicago, Burlington & Quincy Railroad, providing the two lines with direct access to Chicago and the markets of the Midwest and South.

Shortly afterward, the NP and GN joined again in constructing the Spokane, Portland and Seattle Railway, begun in 1905 and completed in 1909, its almost 1,000 miles of main line serving productive areas of Washington and Oregon.

NP Transport Subsidiary Formed

In 1932, Northern Pacific formed a wholly-owned subsidiary, the Northern Pacific Transport Company (NPT), to provide highway freight and passenger service as a motor common carrier and to

NP's Monad Represents Good Luck

The two comma-shaped figures which form the Northern Pacific's famed Monad are more than a symbol – they represent a 1,000-year-old legend. At the Chicago World's Fair of 1893, E.H. McHenry, NP's chief engineer, visited the Korean exhibit and was impressed by its flag featuring the Monad design. He adopted the symbol to be used for NP, and then began an historic search to learn of its origin which dates to ancient China. The philosophy involved two basic principles – the Yang and the Yin, represented by opposing halves of the symbol. Their primitive meanings were Light for Yang, and Darkness for Yin. Philosophically they stood for the positive and the negative. Over the years, they have had many different interpretations and, in time, the Monad has come to represent "good luck."

Northern Pacific's first locomotive was the little balloon-stacked Minnetonka. Built in Pittsburgh by Smith & Porter at a cost of $6,600, the 12-ton, 27½-foot engine was delivered to NP in 1870 and saw front-line duty with construction forces in both Minnesota and Washington. Subsequently sold to a logging company, it was discovered in retirement by NP and completely refurbished for exhibit at the New York and Chicago World's Fairs in the 1930s.

supplement its rail service. NPT was authorized to operate in the states of Washington, Montana, Idaho, Wyoming, North Dakota and Minnesota.

During World War II and the following decade, Northern Pacific carried out a major rehabilitation program, reballasting and laying heavier rail on 2,000 miles of lines. More than 300 main line curves were eliminated or reduced, bridges and tunnels replaced, and new shops and freight houses built.

As part of its continuing effort to streamline operations and expedite the movement of traffic, NP introduced train radio, continuous welded rail, centralized traffic control and many other technological innovations. The replacement of its steam fleet with efficient diesel-electric locomotives was begun in 1938 and completed in 1958.

At Pasco, Wash., the company constructed the first modern electronic freight classification yard in the Pacific Northwest. Completed in 1955, it provided more expeditious handling of the increased traffic from the vast Columbia Basin agricultural empire.

NP installed its first computer in 1957, heralding a new era of efficiency in operations and management. The vital need for a speedy, dependable system to handle the increasing amount of transmitted computer data, as well as telephone communications, prompted the company to begin construction of a microwave system linking St. Paul, Seattle and Portland.

The installation between Seattle and Portland was completed in 1964. Five years later, the last microwave tower between Seattle and St. Paul was erected, completing the system and ending NP's dependence on wire transmission, vulnerable to winds, storms, snow and sleet.

On March 2, 1970 Northern Pacific became part of Burlington Northern Inc., created by the merger of the NP; Great Northern; Chicago, Burlington & Quincy; and Spokane, Portland and Seattle railways.

Northern Pacific's Lewis and Clark Heritage

No event in history had a greater impact on western railroad construction – and particularly that of the Northern Pacific – than the Lewis and Clark Expedition of 1804-06.

The formal beginning of what has been described as "our national epic of exploration" was President Thomas Jefferson's unpublicized message to Congress on January 18, 1803, requesting $2,500 "for the purpose of extending the external commerce of the United States."

President Jefferson, realizing its importance to the young nation, had long wanted to explore the route to the Pacific, even before the Louisiana Purchase. Within a month of the signing with France on July 4, 1803, 29-year-old Captain Meriwether Lewis was on his way down the Ohio River in a keelboat loaded with supplies for the expedition. His co-captain in the "Corps of Discovery," William Clark, would join him at Louisville on October 26.

"Lewis and Clark" by Joseph Chenoweth.

The historic journey into the little-known Missouri River country began at St. Louis on May 6, 1804. The basic mission of the band of courageous men led by Lewis and Clark would be to survey and describe a route from the Rockies to the North Pacific shore – an overland right-of-way from the Louisiana Purchase to the point of Captain Robert Gray's Columbia River discovery.

No other white men ever had made this long, hazardous journey through the wild Upper Missouri, across foreboding mountains and then down the great Columbia River to the sea.

When the Lewis and Clark party returned in August 1806 to the Dakota country near present-day Mandan, where they first wintered in 40-below-zero weather, they had been lost to the world for nearly two and a half years. Generations of Americans have since been thrilled and inspired by their adventures and accomplishments during that period. The expedition journals, with carefully detailed notes on botany, wildlife, Native American customs and languages, permanently enriched the nation's cultural and scientific heritage.

Not long after the expedition's conclusion, agitation began for the construction of railroads to serve the new territory. Many in time would follow or transect the Lewis and Clark route, but most notably the Northern Pacific.

From Bismarck, N.D., the NP main line paralleled the explorers' trail along the Missouri, Yellowstone, Gallatin and Jefferson rivers to Helena, Mont.; then picked the trail up again where the little band canoed down the Snake River to its confluence with the Columbia, near present-day Pasco, Wash. Many cities and towns along the NP in North Dakota, Montana and Washington closely identify with episodes in the Lewis and Clark journals.

Meriwether Lewis and William Clark opened an unexplored wilderness to settlement, reinforcing the claim of their nation to the so-called Oregon Country. The Northern Pacific Railway became the instrument of settlement.

BNSF'S PREDECESSORS

COLORADO AND SOUTHERN, AND FORT WORTH & DENVER CITY: THE TALE OF TWO ROADS

While the empire builders dreamed of transcontinental railroads connecting the markets of the East to the growing Pacific Coast, other rail entrepreneurs envisioned laying track where civilization was just taking root. One such visionary, John Evans, desired to link by rail the Gulf of Mexico and Texas with the Rocky Mountain region, an area with tremendous natural resources and unlimited opportunities.

Colorado and Southern Engine No. 71

Meanwhile in Texas, men like Colonel Warren H.H. Lawrence and Grenville M. Dodge saw great opportunity for rail in the Southwest. They recognized the value of connecting their Texas railroad to the Rockies, a link that would accommodate a growing commerce. Thus the stories of the Colorado and Southern and the Fort Worth & Denver City began similarly and ended with the same final chapter.

The Gulf-to-Rockies Dreamer

John Evans was born in 1814 in Waynesville, Ohio, and was educated as a doctor. After moving to Chicago in 1848, he began a 10-year association with the Fort Wayne and Chicago Railroad. His efforts as an advocate of various civic and transportation projects were recognized by national figures, and in 1862, he was appointed territorial governor of Colorado by President Abraham Lincoln.

At the time of Evans' appointment, Colorado was as isolated as the territory was difficult to colonize. The region's mountains were forbidding, making it difficult to move supplies and send communication. In the 1870s, the Rio Grande, the Santa Fe and the Union Pacific (UP) built lines into the territory.

Evans believed an alternate rail outlet to eastern markets was a necessity for Colorado. His idea was to build a line to the Gulf of Mexico, where steamers would connect and move traffic to the Atlantic seaboard. Not only would the line create effective competition with its low rail and water rates, it was necessary for the economy of the communities, especially Denver and Pueblo.

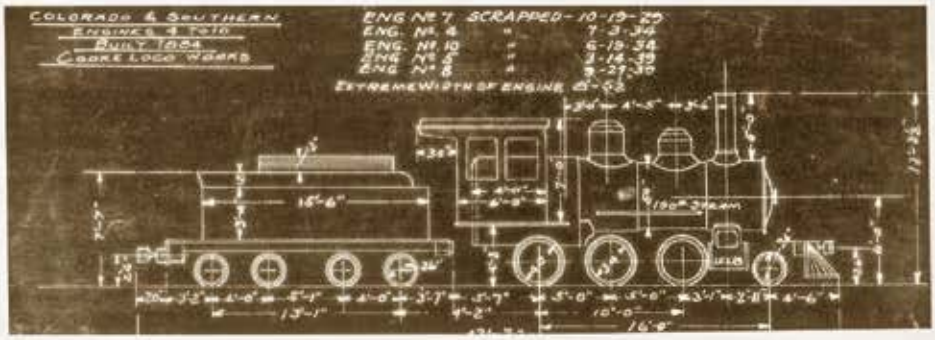
Evans organized a railroad to run southward from Denver in 1881. Incorporated in Colorado on Jan. 25, 1881, the Denver and New Orleans Railroad (DNO) was Evans' first major step for his vision. The DNO line was strategically planned to connect with the Texas Central, which would provide access to the Gulf of Mexico at Galveston, Texas. It would cross the Santa Fe at La Junta, providing access to the Gulf of California, and connect with the Missouri, Kansas and Texas at or near Fort Worth, where the rails of the Texas and Pacific Railway would lead to New Orleans.

The new enterprise would be extremely advantageous to Denver, and Evans busied himself with financing the project, but the connection between the Rocky Mountains and Texas had not yet fully crystallized.

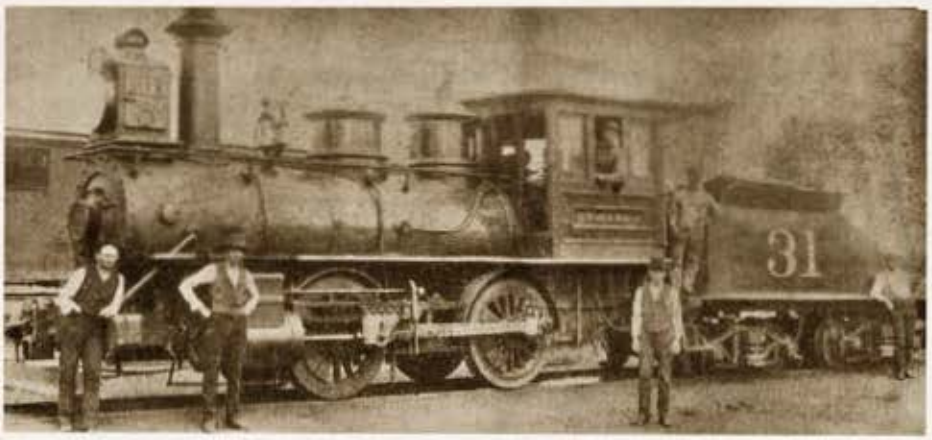
The Texas Connection

With its tremendous undeveloped resources, Texas was full of opportunities. Its first railroad began operation in 1853 and by 1870, a 700-mile rail network had emerged. Construction moved northwest from the Gulf Coast, and by 1873 Fort Worth was just 35 miles from the Gulf-Kansas City main line, to which it would be joined with the coming of the Texas and Pacific.

In 1880, Fort Worth was a frontier town of about 9,000 people, and an active trading center and potential railroad center for the West. A former Kansas politician, Col. Warren H.H. Lawrence had moved to the city in 1868. He, too, was interested in railroads, and visualized a Gulf-to-Rockies route. Lawrence had introduced a bill to the Texas Legislature encouraging a connection with any Colorado railroad, and though the bill was vetoed, Lawrence continued to pursue his goal. Working with other leading citizens, he drew up a charter for the Fort Worth & Denver City Railway Company (FW&D), which became effective May 26, 1873. The charter specified that the FW&D would



Narrow gauge drawings of Colorado and Southern Engine



Fort Worth & Denver City Engine No. 31 in Yard Engine at Wichita Falls, Texas back in 1890.

build and operate a line at or near Fort Worth, where it would form a junction with the Texas and Pacific, and head northwesterly in the direction of Denver.

The line's construction was delayed as a result of the "Panic of '73." Grading began in 1881 at Hodge, near Fort Worth, under the guidance of Gen. Grenville M. Dodge, a civil engineer who had built several major lines, mostly the Union Pacific.

Back in Colorado, Evans was still seeking a connection to Texas. Somehow he had overlooked the FW&D, but his attention was brought to the modest line in 1881. Dodge and Evans negotiated an agreement that would have the two roads meet at the Canadian River. However, Dodge and the FW&D remained cautious by not extending their line without certainty that Evans' road was financially stable, even though he believed a Gulf-to-Rockies system was long overdue.

Tripping Up the Competition

In the early 1880s, in face of opposition from the Rio Grande, Santa Fe and UP, Evans began building the DNO south from Denver to Colorado Springs and Pueblo on a reconfigured route as he determined that the railroad had a better chance of survival if it were built into established cities. But his enterprise suffered losses and floundered. In 1885, the road was reorganized and emerged as the Denver, Texas and Gulf Railroad Company.

Evans knew that for his dream to be realized, one of the larger, established railroads in Colorado would have to let him move forward with his plans. He used an offer from the Santa Fe to ensure the survival of his railroad, as well as to get the attention of Dodge.

In 1880, Santa Fe agreed with Rio Grande and UP not to build a line north or west of Pueblo for 10 years, a restriction Santa Fe's W.B. Strong felt severely hindered the railway. In 1884, Strong was ready to abandon the agreement, even to the point of purchasing Evans' railroad. The directors disapproved of Strong's plan, but by 1887, the Santa Fe wanted an independent entrance into Denver. Strong was directed to either buy Evans' road or build one. Evans used Santa Fe's offer as a bargaining point with Dodge. Following negotiations, Evans and Dodge finally had an agreement, signed on Feb. 15, 1887. The agreement would close the 481-mile gap between Pueblo and Quanah, the current FW&D railhead, and provide for an independent operation of the entire Gulf-to-Rockies route.

Under the guidance of both Evans and Dodge, a new company was designed – the Denver, Texas and Fort Worth was incorporated in Colorado on April 12, 1887. This company operated a railroad from Pueblo to the Texas-New Mexico border and acquired control of both the Denver, Texas and Gulf and the FW&D. On March 14, 1888, the FW&D physically connected with the Denver, Texas and Fort Worth Railroad (later known as the Colorado and Southern) at Union Park near Folsom, N.M. This "Panhandle Route" would complete the through route from Denver to Texas.

Fort Worth & Denver City Railway Company share worth $100.

Incorporated in Colorado on Dec. 17, 1898, the Colorado and Southern comprised nearly 30 railroad companies, combined 1,085 miles of track and held a controlling stock interest in the FW&D. In 1908, both the C&S and the FW&D became a part of the CB&Q system which later, at the urging of James J. Hill, became part of the Burlington Northern on March 2, 1970.

The first Colorado and Southern logo was stylized, script lettering above the company name. It was briefly used in the early 1900s and then discontinued altogether. Not until 1920 was another logo adopted and it was the more commonly recognized circle design with simple block letters.

The Fort Worth & Denver City trademark was unusual in the fact that it never included the railway's name. Like the C&S logo, it was a circle design and used the railroad's moniker, "The Denver Road" and claimed itself as the "Shortest Route to Colorado and the Northwest."

BNSF'S PREDECESSORS

THE SP&S: IT BECAME "THE NORTHWEST'S OWN RAILWAY"

Geography and a keen vision of the vast potential for commerce along a water-level route through the towering Cascade Mountain Range combined to create the Spokane, Portland and Seattle Railway Company (SP&S) shortly after 1900.

The SP&S was incorporated under the general laws of the State of Washington on August 23, 1905, as the Portland and Seattle Railway Company, but its heritage dates from the early 1880s.

NP Began North Bank Line in 1881

The Northern Pacific Railway Company, pursuing a plan to construct a line from Pasco, Wash., to Portland, Ore., began laying a grade along the north bank of the Columbia River in 1881 near a station now called Maryhill, 114 miles east of Portland. The project was abandoned in 1883 when Henry Villard gained control of the NP and an agreement was made for the NP to reach Portland by operating over the Oregon Railway and Navigation Company (OR&N) line along the south bank of the Columbia, thus completing the NP as the first northern transcontinental railroad.

Hill Plans Spokane-Portland Link

Great Northern's James J. Hill declared at the 1905 Lewis and Clark Exposition in Portland that he intended to "help in the development of Oregon" by building a railroad from Spokane to Portland.

By 1905, the GN and NP were well established with transcontinental lines reaching more than halfway across the nation from Puget Sound to Minneapolis and St. Paul. Under Hill's stimulus, they had joined four years earlier to purchase nearly all the outstanding stock of the Chicago, Burlington & Quincy Railroad for a direct line to Chicago and the cities of the East and to a growing network of mid-continent lines.

The West still beckoned, and the potential of a new line into Oregon commanded Hill's intense interest. NP rights along the Columbia River's north bank provided an attractive route, and the two "Northern Lines" joined forces. From the beginning, the venture was controlled and financed jointly by GN and NP, each with 50 percent ownership. This division of interest afforded the independence that gained for the new railroad recognition as "The Northwest's Own Railway."

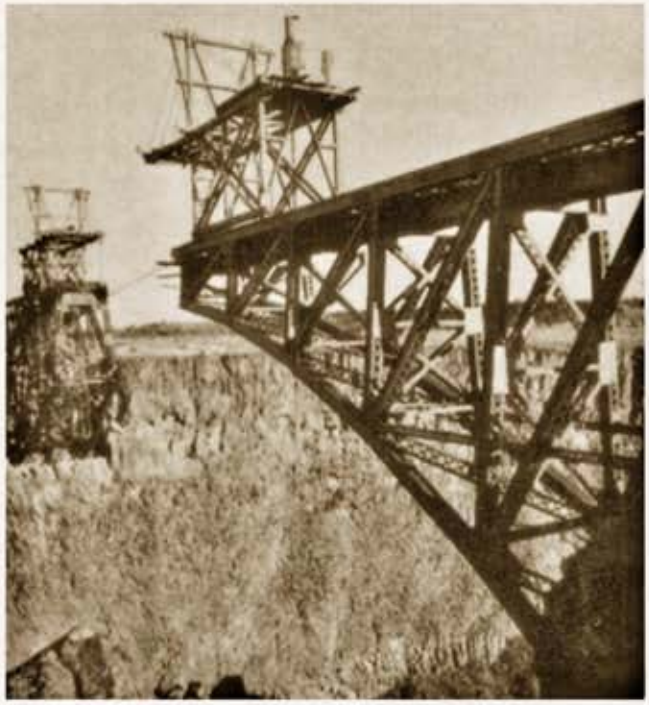
On February 1, 1908, the name of the fledgling corporation was formally changed to Spokane, Portland and Seattle Railway Company, through a charter amendment.

Harriman Dispute Settled in 1907

When work began in August 1905 on the first segment of the new "North Bank Line" between Vancouver, Wash., and a connection with the NP at Pasco, it triggered the active opposition of Edward H. Harriman's OR&N and competitive interests along the river's south bank. The contest for supremacy in common territory created several intensely dramatic situations.

SP&S initiated construction simultaneously at several locations along the Columbia to firmly establish its rights. Rival obstructive tactics were frequent until the courts settled a dispute over Cape Horn Tunnel, 35 miles east of Portland, on 1907.

Harriman interests began tunneling from the west, while SP&S crews bored from the east. Only one tunnel could be made through the towering monolith at the river's edge, and its control held in balance the fate of the north bank route. The courts affirmed the claims of Hill and the SP&S, judging that Harriman had no intention of actually building and operating a north bank line.



The Crooked River bridge in Oregon was the highest arch in the U.S. when it was built in 1911, spanning a canyon 320 feet deep and 350 feet wide.

Gold Spike Driven March 11, 1908

Construction of the new line was completed in record time. The last rail between Vancouver and Kennewick, Wash., across the river from Pasco, was laid February 26, 1908, at Sheridan's point, 50 miles east of Vancouver. Two weeks later, on March 11, an excursion train brought scores of dignitaries to the site for the ceremonial driving of a golden spike.

Commerce moved over segments of the line during construction, and by May of 1909 the entire 375-mile line between Marshall, near Spokane, and Portland was in service.

Oval Trademark Identified SP&S

The first time the SP&S used a trademark was on its timetable in 1910, two years after the last spike was driven. Because the SP&S was so often referred to as "The North Bank Road," that phrase became featured in the logo. Below it was the railway's official name in an encircling band, and above was another well-known phrase – Columbia River Scenic Route. Eventually, the descriptive phrases were eliminated from the trademark and the company's name became the sole element highlighted in the oval.

The new line thrived as lumber and other Pacific Northwest products moved to connections with the parent railroads at Spokane. Its success spurred expansion through acquisition of other lines in Washington and Oregon and by construction of lines for wholly owned subsidiaries.

The Columbia River and Northern Railway Company line built in 1902 from Lyle, on the banks of the Columbia River, north to Goldendale, Wash., was purchased March 30, 1908. Two years later, the SP&S purchased the Astoria and Columbia River Railroad Company, founded in 1895. Its line from Holladay, near Astoria, to Goble, Ore., and a branch south to Fort Stevens, opened a gateway to the mouth of the Columbia.

The highly productive Willamette Valley south of Portland and its access to timber in the flanking Cascade and Coast mountain ranges commanded Hill's continuing interest in penetrating Oregon more deeply.

In February 1910, he purchased practically all the stock of the Oregon Electric Railway Company (OE), which had been formed in 1906 to construct or acquire lines south through Salem to Roseburg, Ore. The United Railways Company, formed in 1906 as an interurban electric serving parts of Portland and extending west into the Tualatin River Valley, was similarly acquired by Hill.

Hill Eyes Deschutes Canyon Route

A line contemplated by others, who in 1909 formed the Oregon Trunk Railway (OT) and established claims to a right of way along the Deschutes River Canyon in central Oregon, was seen by Hill as a choice route east of the Cascades that possibly could be extended south all the way into California. This line was linked with the SP&S by bridging the Columbia River between the mouth of the Deschutes River and Wishram (then known as Fallbridge) on the SP&S main line in Washington.

Hill made cash advances to the OT for construction on June 4, 1910, and on that same date, for himself and for Great Northern offered half interest in the Oregon Trunk, Oregon Electric and United Railways to Northern Pacific, with the understanding that these lines and their extensions become property of the SP&S. NP accepted the offer on June 6, and an exciting new chapter in Pacific Northwest railroad history began to unfold.

Harriman's interest in the Deschutes River route into central Oregon paralleled that of Hill. The OT and Harriman's Deschutes Railroad chose opposite banks of the Deschutes Canyon and raced to reach control points to the south. Rival crews intermittently and, sometimes violently, obstructed the progress of the other.

The "War of the Gorges" finally was settled by a federal ruling known as "The Canyon Act." and on September 30, 1911, the two companies reached a compromise by completing a single line from Metolius to Bend, Ore., the OT's southern terminus.

In December 1921 United Railways, by then a subsidiary of the SP&S, acquired the Portland, Astoria and Pacific Railroad Company and Nehalem Boom Company, both owned by the Oregon-American Lumber Company. The Gales Creek and Wilson River Railroad Company, founded in 1917 to build lines west of Portland from Wilkesboro to Tillamook on the Oregon coast, was purchased by land development subsidiaries of the NP and GN in January 1922 in the interest of the SP&S.

These added rail lines linked with the Oregon Electric and the SP&S line to Astoria, Ore., expanding rail traffic potential from the points west of Portland. Nehalem Boom Company, in addition to lumber- and logging-related operations, held railroad rights along the Columbia and Willamette Rivers northwest to Portland.

The SP&S also served as an intermediary for its parent companies in real estate and steamship ventures.

Ruth Trust Company, founded in 1908 by incorporators of United Railways, later was placed in SP&S control. Its name was changed in 1913 to Ruth Realty Company.

Great Northern Pacific Steamship Company was formed by GN and NP September 30, 1914, to acquire and operate ships, tugs, other water craft and attendant marine service facilities. Its primary purpose was to provide a fast passenger service to California in competition with the Southern Pacific, the immediate incentive being the opening of the Panama-Pacific International Exposition in San Francisco in 1915.

The SP&S was issued all outstanding shares in the steamship company, and contracts were let for the construction in

For a period after completion of the Oregon Trunk in 1911, freight and passengers were ferried across the Columbia from Clarke, Oregon to Wishram, Washington for an SP&S connection. A bridge was built later.

Twin steamships "Great Northern" and "Northern Pacific" each had a 20-knot speed and a crew of 201. During winter, they ran between San Francisco, San Pedro and Honolulu, returning to their coastal route in the spring.

Philadelphia of two luxury vessels, the "Great Northern" and "Northern Pacific," at a cost of $4,463,500.

These two fastest ships under the American flag began service in March 1915 on a 27-hour schedule between Flavel (Astoria) on the Columbia River and San Francisco, making six round trips monthly.

World War I brought an end to this venture when the "Great Northern" and "Northern Pacific" were "drafted" by the U. S. Navy and outfitted for trans-Atlantic troop service, where they performed with distinction.

On their own competitive lines, the parent companies set a pace of industrial development, freight and passenger service that was matched by their vigorous offspring. The SP&S emerged with a style of its own that capitalized upon the competitiveness of its parents. A new service by one that involved the SP&S was quickly matched by the other.

The SP&S attracted hundreds of major industrial plants to locations along its lines and those of its subsidiaries, and in the days before private automobiles, the company boasted the services of as many as 50 daily passenger trains.

Construction of hydro-electric dams on the Columbia River in the 1930s and 1950s brought new surges of industrial development. These also forced relocation of the SP&S main line along the north bank. New rail, laid in an era of more advanced railroad technology, won acclaim for the SP&S for one of the finest stretches of track in the nation.

The SP&S had its own presidents from 1907 through 1932, after which presidents of the parent companies alternated as chief executive officers, with management and operating responsibilities delegated to a vice president and general manager.

From 1932 to 1940, the SP&S was operated as a division of the parent companies under a superintendent headquartered at Portland who was responsible to general managers of the parent companies at Seattle.

Rivers Shaped the Destiny of the SP&S

Great rivers of the West were a major influence in railroad location, and nowhere is this more apparent and significant than with the Spokane, Portland and Seattle Railway (SP&S).

Rivers have been natural arteries of travel and commerce throughout human history, but in the mountainous West their deep gorges and occasional flood plains also offered the most suitable grades for railroads.

The SP&S hugs the north bank of the scenic Columbia and Snake Rivers for 290 of the 380 miles between Portland and Spokane. West of the mountains, waterfalls cascade down from towering peaks capped with snow and lush with forest greenery. To the east the scene quickly changes in just a few miles to the stark beauty of almost barren foothills, deprived of rains trapped on the other side of the mighty Cascade Range.

From Portland, west to Astoria and the Coast, the SP&S line skirts the tidewaters of the lower Columbia's south bank, an easy 100-mile course through the Coast Mountain Range.

An SP&S train steams along the Columbia River in 1909 near Beacon Rock.

The Deschutes River is a thundering mountain stream with precipitous drops on its way to the Columbia. Still, its canyon yields the easiest grade east of the Cascades into Central Oregon for the Oregon Trunk Railway, an SP&S subsidiary line reaching 151 miles south to Bend.

The Oregon Electric Railway line, west of the Cascades, is nestled in the broad flood plains of the Tualatin and Willamette River Valleys, a gentle grade for almost all of the 140 miles from Portland to Eugene.

These natural corridors were economically attractive to the founders and builders of the SP&S and its predecessors. Less motive power was required to operate heavily laden freight trains, and their shores were natural settlements for a growing population. Through the years, extensive utilization of water resources for power and irrigation brought flourishing industrial and agricultural development to the railway.

GENEALOGY OF THE BURLINGTON NORTHERN AND SANTA FE RAILWAY COMPANY

ATCHISON, TOPEKA & SANTA FE (SANTA FE)

ALBION & SOUTHEASTERN
ARIZONA & CALIFORNIA
ARIZONA & UTAH
ARKANSAS VALLEY
ATLANTIC & PACIFIC
BARTON COUNTY & SANTA FE
BUFFALO NORTHWESTERN
CALIFORNIA, ARIZONA & SANTA FE
CALIFORNIA EASTERN
CALIFORNIA & NEVADA
CALIFORNIA SOUTHERN
CANE BELT
CHICAGO & ILLINOIS RIVER
CHICAGO, KANSAS & WESTERN
CHICAGO, PEKIN & SOUTHWESTERN
CHICAGO, SANTA FE & CALIFORNIA
CLINTON & OKLAHOMA WESTERN
COLORADO MIDLAND
CONCHO, SAN SABA & LLANO VALLEY
CORONA & SANTA FE
DENVER, ENID & GULF
DENVER, KANSAS & GULF
DENVER & SANTA FE
DENVER UNION TERMINAL
EASTERN RAILWAY OF NEW MEXICO
ELDORADO & SANTA FE
ELKHART & SANTA FE
FLORENCE, EL DORADO & WALNUT VALLEY
FORT WORTH & RIO GRANDE
FRESNO INTERURBAN
GOLDEN CITY & SOUTH PLATTE
GRAND CANYON
GULF, BEAUMONT & GREAT NORTHERN
GULF, BEAUMONT & KANSAS CITY
GULF, COLORADO & SANTA FE
HEALDTON & SANTA FE
HUTCHINSON & SOUTHERN
ILLINOIS NORTHERN
JASPER & EASTERN
KANSAS CITY, EMPORIA & SOUTHERN
KANSAS CITY, MEXICO & ORIENT
KANSAS CITY, TOPEKA & WESTERN
KANSAS SOUTHWESTERN
LEAVENWORTH, NORTHERN & SOUTHERN
LEAVENWORTH & TOPEKA
LOS ANGELES & SAN GABRIEL VALLEY
MANHATTAN, ALMA & BURLINGAME
NEW MEXICO & ARIZONA
NEW MEXICO CENTRAL
NEW MEXICO & SOUTHERN PACIFIC
NORTHWESTERN PACIFIC
OAKLAND & EAST SIDE
OKLAHOMA CENTRAL
OKLAHOMA CITY - ADA - ATOKA
PANHANDLE & SANTA FE
PECOS & NORTHERN TEXAS
PECOS RIVER
PECOS VALLEY & NORTHEASTERN
PUEBLO UNION
RIO GRANDE, MEXICO & PACIFIC
ROCKY MOUNTAIN & SANTA FE
ST. LOUIS, KANSAS & SOUTHWESTERN
ST. LOUIS & SAN FRANCISCO
SALINA & SANTA FE
SANTA FE, PRESCOTT & PHOENIX
SANTA FE, RATON & DES MOINES
SANTA FE, RATON & EASTERN
SOUTH PLAINS & SANTA FE
TEXAS & GULF
TEXAS, SABINE VALLEY & NORTHWESTERN
TOLEDO, PEORIA & WESTERN
VERDE VALLEY
WICHITA & WESTERN

BURLINGTON NORTHERN (OREGON-WASHINGTON) INC.

OREGON ELECTRIC
OREGON TRUNK

CHICAGO, BURLINGTON & QUINCY RAILROAD COMPANY

CHICAGO, KANSAS CITY & TEXAS
KANSAS CITY & ATLANTIC
KANSAS CITY & NORTHERN CONNECTING
OMAHA, KANSAS CITY & EASTERN
QUINCY, MISSOURI & PACIFIC

QUINCY, OMAHA & KANSAS CITY

ST. CLAIR, MADISON & ST. LOUIS BELT

MISSOURI & ILLINOIS BRIDGE & BELT

ALBIA, KNOXVILLE & DES MOINES
AMERICAN CENTRAL
ATCHISON & NEBRASKA
AURORA EXTENSION
BLACK HILLS & FT. PIERRE
BROWNSVILLE & NODAWAY VALLEY
BROWNVILLE, FORT KEARNEY & PACIFIC
BURLINGTON & COLORADO
BURLINGTON & MISSOURI RIVER
BURLINGTON & NORTHWESTERN
BURLINGTON & SOUTHWESTERN
BURLINGTON & WESTERN
CARTHAGE & BURLINGTON
CENTRAL MILITARY TRACT
CHARITON, DES MOINES & SOUTHERN
CHEYENNE & BURLINGTON
CHICAGO & AURORA
CHICAGO & IOWA
CHICAGO & ROCK RIVER
CHICAGO, BURLINGTON & KANSAS CITY
CHICAGO, BURLINGTON & NORTHERN
CHICAGO, FT. MADISON & DES MOINES
CHICAGO, GREENVILLE & SOUTHERN
CHICAGO, NEBRASKA & KANSAS
CLARINDA, COLLEGE SPRINGS & S.W.
COUNCIL BLUFFS & ST. JOSEPH
DEADWOOD CENTRAL
DES MOINES & KANSAS CITY
DES MOINES & KNOXVILLE
DES MOINES, OSCEOLA & SOUTHERN
DIXON AND QUINCY
DIXON, PEORIA & HANNIBAL
FT. MADISON & NORTHWESTERN
FULTON COUNTY EXTENSION
FULTON COUNTY NARROW GAUGE
GRAND ISLAND & NORTHERN WYOMING
HANNIBAL & ST. JOSEPH
HASTINGS & AVOCA
HUMESTON & SHENANDOAH
ILLINOIS GRAND TRUNK
IOWA & ST. LOUIS
IOWA SOUTHERN
JACKSONVILLE & ST. LOUIS
JACKSONVILLE, LOUISVILLE & ST. LOUIS
JACKSONVILLE & SOUTHEASTERN
JOLIET, ROCKFORD & NORTHERN
KANSAS CITY & CAMERON
KANSAS CITY & OMAHA
KANSAS CITY, ST. JOSEPH & BURLINGTON
KANSAS CITY, ST. JOSEPH & COUNCIL BLUFFS
KEOKUK & NORTHWESTERN
KEOKUK & ST. PAUL
KEOKUK & WESTERN
KEOKUK, IOWA CITY & MINNESOTA
LEON, MT. AYRE & SOUTHWESTERN
LEWISTON
LINCOLN & NORTHWESTERN
LOWELL & SOUTHERN
MIDLAND PACIFIC
MISSISSIPPI VALLEY & WESTERN
MISSOURI & ILLINOIS BRIDGE BELT
MISSOURI, IOWA & NEBRASKA
MISSOURI VALLEY
MOULTON & ALBIA
NEBRASKA
NEBRASKA & COLORADO
NEBRASKA CITY, SIDNEY & N.E.
NODAWAY VALLEY
NORTHERN CROSS
OGLE & CARROLL COUNTY
OMAHA & NORTH PLATTE
OMAHA & SOUTHWESTERN
ORION & MINERSVILLE
OTTAWA, OSWEGO & FOX RIVER VALLEY
PEORIA & BURLINGTON
PEORIA & HANNIBAL
PEORIA & OQUAWKA
PLATTE COUNTY
QUINCY, ALTON & ST. LOUIS
QUINCY & CARTHAGE
QUINCY & CHICAGO
QUINCY & PALMYRA
QUINCY & WARSAW
QUINCY, OMAHA & KANSAS CITY
RED OAK & ATLANTIC
REPUBLICAN VALLEY
REPUBLICAN VALLEY & KANSAS
ROCKFORD NORTHERN
ROCKFORD, ROCK ISLAND & ST. LOUIS
ST. JOSEPH & COUNCIL BLUFFS
ST. JOSEPH & DES MOINES
ST. LOUIS, ALTON & ROCK ISLAND
ST. LOUIS, KEOKUK & NORTHWESTERN
ST. LOUIS, ROCK ISLAND & CHICAGO
WESTERN IOWA

COLORADO & SOUTHERN RAILWAY COMPANY

COLORADO CENTRAL
COLORADO CENTRAL & PACIFIC
DENVER & NEW ORLEANS
DENVER, LEADVILLE & GUNNISON
DENVER, MARSHALL & BOULDER
DENVER, SOUTH PARK & PACIFIC
DENVER, TEXAS & FT. WORTH
DENVER, TEXAS & GULF
UNION PACIFIC, DENVER & GULF

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TRINITY & BRAZOS VALLEY

FT. WORTH & DENVER CITY

WICHITA VALLEY

GREAT NORTHERN RAILWAY COMPANY

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SPOKANE, COEUR D'ALENE & PALOUSE

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DULUTH, MISSISSIPPI RIVER & NORTHERN
DULUTH, SUPERIOR & WESTERN
DULUTH, WATERTOWN & PACIFIC
EASTERN MINNESOTA
FAIRHAVEN & SOUTHERN
FARMERS GRAIN & SHIPPING
FIRST DIVISION ST. PAUL & PACIFIC
GREAT FALLS & CANADA
KOOTENAI VALLEY
LAKE SUPERIOR & SOUTHWESTERN
MINNEAPOLIS & NORTHWESTERN
MINNEAPOLIS & ST. CLOUD
MINNEAPOLIS UNION
MINNEAPOLIS WESTERN
MINNESOTA & PACIFIC
MONTANA CENTRAL
MONTANA WESTERN
MOORHEAD & BARNESVILLE
NEBRASKA & WESTERN
NELSON & FT. SHEPARD
NEW WESTMINSTER & SOUTHERN
NORTHWESTERN COAL
RED MOUNTAIN
RED RIVER & LAKE OF THE WOODS
RED RIVER & MANITOBA
RED RIVER VALLEY
ST. CLOUD & LAKE TRAVERSE
ST. CLOUD, MANKATO & AUSTIN
ST. PAUL & PACIFIC
ST. PAUL, MINNEAPOLIS & MANITOBA
SEATTLE & MONTANA
SEATTLE & NORTHERN
SIOUX CITY & NORTHERN
SIOUX CITY, O'NEILL & WESTERN
SIOUX CITY, YANKTON & SOUTHWEST
SOUTH DAKOTA CENTRAL
SPOKANE & EASTERN
SPOKANE & INLAND
SPOKANE & INLAND EMPIRE
SPOKANE, COEUR D'ALENE & PALOUSE
SPOKANE FALLS & NORTHERN
VANCOUVER, VICTORIA & EASTERN
VICTORIA TERMINAL RY & FERRY COMPANY
VICTORIA, WESTMINSTER & YUKON RY
WATERTOWN & SIOUX FALLS
WESTERN MINNESOTA
WILLMAR & SIOUX FALLS

NORTHERN PACIFIC RAILWAY COMPANY

BRAINERD & NORTHERN MINNESOTA

MINNESOTA & INTERNATIONAL

BIG FORK & INTERNATIONAL FALLS
BILLINGS & CENTRAL MONTANA
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DRUMMOND & PHILLIPSBURG
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FARGO & SOUTH WESTERN
GREEN RIVER & NORTHERN
HELENA & JEFFERSON COUNTY
HELENA & NORTHERN
HELENA & RED MOUNTAIN
HELENA, BOULDER VALLEY & BUTTE
JAMES RIVER VALLEY
JAMESTOWN & NORTHERN
LAKE SUPERIOR & MISSISSIPPI
LITTLE FALLS & DAKOTA
MINNEAPOLIS & INTERNATIONAL
MINNESOTA NORTHERN
MISSOULA & BITTER ROOT VALLEY
MONTANA UNION
MONTE CRISTO
NEBRASKA & LAKE SUPERIOR
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NORTH PACIFIC, LAMOURE & MO. RIVER
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OREGON & WASHINGTON TERRITORY
PORTLAND, VANCOUVER & YAKIMA
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NORTHEAST OKLAHOMA

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CAPE GIRARDEAU
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CAPE GIRARDEAU SOUTHWESTERN
CRYSTAL
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KANSAS CITY & SOUTHEASTERN
KANSAS CITY & SOUTHERN
KANSAS CITY & SOUTHWESTERN
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KANSAS CITY, FT. SCOTT & MEMPHIS
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KANSAS CITY, MEMPHIS & MOBILE
KANSAS MIDLAND
LITTLE ROCK & TEXAS
MEMPHIS & ST. LOUIS
MEMPHIS, BIRMINGHAM & ATLANTIC
MEMPHIS, CARTHAGE & NORTHWESTERN
MEMPHIS, HOLLY SPRINGS & MOBILE
MEMPHIS, HOLLY SPRINGS & SELMA
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SOUTHWEST PACIFIC
SPRINGFIELD & NORTHERN
SPRINGFIELD & SOUTHERN
SPRINGFIELD & WESTERN MISSOURI
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